Lectures
ON
THE SURGICAL TREATMENT OF ANEURISM
IN ITS VARIOUS FORMS.

Delivered at the Royal College of Surgeons, June, 1874.

BY TIMOTHY HOLMES, M.A., F.R.C.S. ENG.,
PROFESSOR OF SURGERY AND PATHOLOGY TO THE COLLEGE.

LECTURE V.—PART II.

POPLITEAL ANEURISM—CONTINUED.

THE next point to determine is the best method of compression—a subject on which very various opinions are entertained. Most surgeons, of whom I am one, much prefer the digital to every other form of pressure when a sufficient number of really well-trained and trustworthy assistants can be obtained; while others, believing that digital pressure is liable to be unsteady and that it gives more pain, and having a perhaps exaggerated idea of its difficulty, prefer some form of tourniquet, or even (with Dr. P. Heron Watson) the comparatively rude contrivance of a weight. This surgeon speaks in the following terms:—"Digital compression is painful, usually unequally maintained, apt to be excessive, requires relays of skilled assistants, whose frequent shifts annoy the patient and prevent sleep, while, except in a hospital patient, they are practically unsuitable. The weight, on the contrary, once correctly set, needs no meddling, exhausts no strength, is unvarying in its degree of force, and requires only so much regulation and watching as can be afforded by a non-professional assistant, who, without fatigue, can easily maintain a constant and efficient superintendence for several hours at a time, without occasioning the slightest disturbance of the patient's repose."*

I am far from saying that there is no truth in these objections and difficulties connected with digital pressure, but that they outweigh the advantages of the plan I cannot convince myself; and as I have already given instances in which cures have been obtained, both in hospital and private practice, by the digital compression of arteries so deeply situated as the carotid and subclavian, there cannot be any insuperable difficulty in digital compression of the femoral if the finger is really a more intelligent, a less irritating, and a less bulky substance than the pad or the weight, and if it can command the artery equally well, all of which I should have thought self-evident facts.

As we go on we shall see how far Dr. Watson's judgment has been supported by recent experience.

That the application of a weight, as recommended by Dr. Watson, is very commonly a convenient way of carrying on the interrupted method of making complete pressure is, however, certain; and it is an additional recommendation that the weight can often be made in a form almost as small at the end as the finger, and that the patient, if intelligent, can frequently manage it himself. A case recently under the care of Mr. Hussey, of Oxford, illustrates this point. The patient was a man in fair health, about thirty-one years of age. Flexion of the limb did not stop the pulsation in the aneurism; the sac seemed to contain some clot, and the tumour was of no large size. Altogether it appeared a favourable case for pressure, and accordingly compression by the ordinary form of weight and by different tourniquets was tried; but the skin became too tender to bear more of this, and the aneurism was not cured. Accordingly continuous and complete digital pressure was tried, and was carried out without intermission for five hours, when the patient suddenly complained of heat and then of cold in the tumour, followed by intense pain in the leg, and the pulsation ceased. The pressure was then discontinued, and it was believed that the man was cured. But after forty-eight hours a feeble pulsation was again perceptible in the tumour, and in a day or two all the symptoms were the same as before the pressure was commenced. He was now provided with a weight made out of a canvas bag, terminating in a pointed extremity which was filled with sand, the bag containing 8 lb. of shot. This was suspended by a pulley from a wooden frame, and the patient was instructed how to apply it properly to the artery as it passed over the pubes, a piece of leather being laid on the skin. After five hours of this compression the same symptoms as before occurred, and this time the cure was permanent. The posterior tibial artery could be felt when he came to the hospital some months afterwards, but not the anterior.

I have taken the above as a neat example of what very commonly occurs in the compression treatment. The disappearance of the pulsation was ushered in by symptoms exactly analogous to those which are known to accompany embolism in a large artery, and which can only be rationally explained as being caused by the impaction of a plug in the mouth of the aneurismal sac, probably extending also into the tube of the artery itself. Had the digital pressure been longer maintained, in all probability this plug would have acquired sufficient firmness to resist the force of the circulation permanently. As it was, it became detached, and this detachment involved probably the blocking of the anterior tibial artery. The circulation through the aneurismal sac then recurred (the sac at this time being filled only by loose coagula, which were probably redissolved), but no other bad consequence followed. The reapplication of the digital pressure would no doubt have been as successful as the application of the weight was; in fact, the action of the two forces is in all respects identical—allowing that each of them is really applied all the time to the artery firmly enough to stop its pulsation,—and the only question that can arise is whether a staff of disciplined assistants, if available, are more trustworthy than a watcher with a weight.

There may be a question which form of pressure is best when the time required is so short that the pressure can be tolerated on the same spot for the whole period. If any shifting is required, I cannot but hold that a really well-disciplined staff of assistants is far more to be trusted than a weight; for the peculiar course of the femoral artery renders it extremely difficult to apply a weight effectually anywhere except at the point where it catches the artery by acting vertically on the brim of the pubes. When a tourniquet is required, that invented by Dr. Carte seems to me by far the best, provided that the precaution insisted on by its author is observed—viz., to see that the elastic bands are not too strong; if they be so, they cease to be elastic at all as far as the patient is concerned, and a dead weight is then really applied. Instrumental pressure, aiming as it does less at celerity than at safety in the cure, should never be applied so as to be very painful to the patient, and he should always be indulged with intervals of complete and comfortable repose.

I shall speak first of digital pressure. The notes furnished to me from the various hospitals do not give any sufficient data for estimating the average success of digital compression, considered as the sole means of treatment. I find one case in which, after nearly complete cure by the tourniquet, four hours of digital compression produced complete consolidation. But, excluding this, there are only six cases in which it seems to have been the sole means of cure, out of the 66 successful instances of compression. The notes of these cases, as far as they go, show strikingly how much more rapid, and consequently how much less distressing, this treatment is when it does succeed. In one case the cure was obtained in sixteen hours, in a second in twenty-six hours and a quarter, in two others in thirty-six hours, in a fifth in three sittings of eight, sixteen, and ten hours each. In the remaining case the time is not given. There is also among the failures of compression one case in which, after twelve hours of digital compression, the surgeon, for some reason, resorted to the ligature (and with success), although the tumour was found to be somewhat harder. This very probably was not really a failure of compression; some accidental circumstances might very likely have made it inconvenient to prolong the treatment. All that we are entitled to say, then, from our hospital table, is that, though the treatment by digital pressure has come into general use in our hospitals too lately to be fairly reported on, yet such experience as we have had of it justifies the belief that, when well and carefully employed, it is a most efficient, rapid, and painless method of applying pressure.

* Edin. Med. Journ., May, 1869.

The records of published practice are collected in the most accessible form by Fischer.* He quotes and refers to 90 cases in which digital compression was used—either alone or in combination with instrumental pressure or flexion—for the cure of popliteal aneurism. Out of these 90 cases there were 17 in which instrumental pressure had been previously employed and had failed, and 3 in which flexion had been previously employed and had failed. In all these 20 cases the cure is attributed to the digital pressure only. There were also eight cases in which the instrumental and digital pressure were used simultaneously, and therefore no precise judgment could be arrived at as to the share which each had in the cure. The total result of these 90 trials of digital pressure as the chief or the only means of cure was as follows:—Digital pressure succeeded in 55 cases. Ligature was used in 23 (of which 14 were cured, 1 recovered after amputation, 1 was not cured, 1 result doubtful, and 6 died); 4 cases were afterwards cured by instrumental compression, combined in 2 with flexion; 2 were amputated, and both died; 3 cases were cured by injection of perchloride of iron, manipulation, and acupressure respectively (but the latter case is an error, I think). In the remaining 3 cases no further treatment was adopted (as far as is known). This gives, out of the 90 cases—76 complete cures and 1 cure after amputation; 4 in which the treatment seems to have been given up; 1 where the result, after ligature of the femoral for varicose aneurism of the popliteal, is doubtful; and 8 deaths (6 after ligature and 2 after amputation). A ratio of 8·9 per cent. of deaths and 14·4 per cent. of failures.

If we compare this ratio of deaths and of failures with those above given as prevailing after other methods of treatment—as, for example, the Hunterian ligature, when used at once,—we do not see any very striking statistical proof of superiority, considering that digital pressure is not ordinarily used as the chief method of treatment in the worst cases. But, as I have often before remarked, the statistical method of reasoning is not really of much use as applied to the treatment of any given case. No one would stop to calculate averages in order to make up his mind what to do in any of the emergencies of practice. The statistics of digital pressure are nevertheless useful as showing that the treatment is one which is fairly successful, even with the limited experience hitherto obtained of it. A fairer view of the advantages of this form of pressure may be derived from considering some of the peculiar features of recorded cases.

There can be no question, in the first place, that the finger of a trained and intelligent person is a more discriminating, more accurate, and less distressing agent for stopping or checking the circulation than any form of instrument, however ingeniously devised. The femoral artery, as it lies in the groin, side by side with its vein and in close proximity to the bone, can be easily commanded, in a thin or even in a moderately stout person, with little expenditure of force, with an almost total absence of pressure on the vein, and usually without much pain, provided that the person compressing knows how to make the pressure. Now all these points are of great importance, and they together constitute a very great superiority for digital as against instrumental pressure, considered with respect to its facility of application only.

In the first place, the slight force which is required to command the femoral in the groin renders it easy for the patient to undertake his own treatment when necessary. This is now illustrated by so many examples, and is so well recognised as a means of treatment for patients who have the necessary intelligence and resolution, that I need only give a very few examples.

The earliest appears to have been Mr. Tufnell's case,† in which there were enlarged inguinal glands impeding the application of the tourniquet. Here Mr. Tufnell taught the patient to compress his own artery until the swelling of the glands had subsided. In this case, however, the cure was effected ultimately by instrumental pressure.

The case of Donohue,‡ Mr. Colles's patient in the Meath Hospital, was completely successful, and was the more remarkable inasmuch as the treatment was devised by the man himself. He had noticed that by compressing his own artery in the groin he relieved the pain in the aneurism (which was judged to be diffused). He accordingly persisted in the treatment for three days, while the surgeon was having the instrument fitted; and at the end of this time Mr. Colles, coming to fit on the tourniquet, found the aneurism cured.

In Vanzetti's second successful case of digital pressure much improvement ensued on intermitting compression, undertaken by the patient himself during three weeks' rest in bed. The aneurism at the end of this time was found partially solidified, and five hours of total digital pressure then completed the cure.

Still more remarkable was the striking case recorded by Mr. Bryant,* and which furnished an interesting preparation in the museum of Guy's Hospital. The patient was a policeman who was admitted into the hospital under Mr. Bryant's care, and cured of popliteal aneurism by digital pressure. He remained well for about a year, when another aneurism formed in the opposite ham. Having noticed the method pursued in his cure at the hospital, he went to bed, and, with his own thumb and fingers, suppressed the pulsation in the femoral artery till obliged by weariness to desist—a period of four hours and a half. The aneurism was then completely cured. Any doubt which might have existed of the reality of the disease and its cure is removed by the subsequent death of the patient from disease of the aorta, and the preservation of both the cured aneurisms.

In several cases it has been noted that digital compression is better managed by the patient himself than by assistants, who perhaps are not perfectly instructed or trustworthy. Thus a case is quoted by Fischer† from Giacich, in which four assistants (male nurses, I believe) were charged with the duty of making digital compression. They did so for four days, from twelve to sixteen hours daily, but without much effect. The patient then took himself in hand, and obtained a cure by persevering for sixty-six days, making compression for two hours and a half every day.

It may be objected that the same amount of force must really be required in order to suppress the pulsation at the same part of the same vessel, whether this force be applied by a man's finger or by any other agent; and as a mathematical proposition this may be conceded. But in practice the intelligent human finger will always accomplish its object with a less amount of force than the unintelligent machine; and hence a less risk of sloughing of the skin in one case than in the other. And the liability to sloughing of the skin is further diminished by the soft living tissue which is pressed upon the patient's thigh, instead of the hard and often rough surface of the compressor. Everyone knows how frequently the skin gives way under the pad of an instrument, and how troublesome this is, especially if erysipelas attacks the ulcerated surface. Such ulcerations are much less liable to occur after digital pressure in all situations, and particularly in the thigh, where the precise seat of the compression can be constantly varied. I lay little stress upon the fatal results of injudicious violence in compression, since these are chiefly records of a past condition of surgery: such as the case quoted by Roux from Boyer, where the sloughing opened into the femoral artery; or the other well-known case, in which the external circumflex was opened.

Again, we have in digital pressure in the groin a far more efficient method of avoiding that compression of the femoral vein along with the artery which has so unfavourable an influence on the course of many cases of instrumental pressure. However dexterously a tourniquet pad may be adjusted and maintained, it is, I believe, utterly impossible not to press to some extent on the femoral vein, even in the groin, where the two vessels are lying side by side; although possibly the whole flow of blood through the vein may in some cases not be obstructed; and the high authority of Dr. Bellingham may be quoted in support of this view—that instrumental pressure cannot be so managed as to avoid the vein, even where the vessels pass over the pubes. And lower down, where the vein inclines more and more to the deep surface of the artery, the simultaneous obstruction of the two vessels becomes still more inevitable and still more complete, so that low down in the thigh the pressure which obstructs the artery acts, it is probable, first on the vein; and if the arterial circulation is to be suspended, that in the vein must also be totally stopped. Now the

* Prager Vierteljahrsch. 1869.
† Dublin Medical Press, vol. i. 1847, p. 109. ‡ Ib., May 1, 1851.

* Guy's Hospital Reports, ser. iii., vol. xiv., p. 241.
† Case 50 in Fischer's table, from the Oest. Zeitschrift f. prak. Heilk.

pressure of a tourniquet pad influences the skin over a considerable surface; and in order to vary the point of pressure, the alternating pads must be applied at a considerable distance from each other, changing from the groin to about the middle of the thigh. Thus, much interference with the venous circulation is unavoidable in instrumental pressure. The finger, on the contrary, can select and isolate the artery in the groin with perfect ease. It can be pressed down on the vessel from the inside, insinuating itself between it and the vein, and so avoiding all pressure on the latter. And the point of pressure can be changed frequently, though only to some little distance, where the vessels have much the same relations to each other, above the origin of the profunda. The point to which Mr. Walker, of Liverpool, has directed attention* is also worth bearing in mind—viz., that by varying the point of pressure from the common to the superficial femoral, we are, in reality, changing the course of the anastomosing circulation. He urges, therefore, the importance of what he calls "the one-artery system" of pressure, and this is certainly easier the smaller the compressor is.

It appears decidedly desirable on all accounts to interfere as little as possible with the vein. Cases are not wanting to show that the vein is often permanently obliterated after pressure; on which point I would refer to M. Verneuil's paper in the *Gaz. des Hôp.* for 1859. And besides the possibility of actual obliteration of the vein at the point of pressure, there can be no doubt of the injurious effect of that engorgement of the whole limb which is often caused by its temporary or incomplete obstruction, and therefore of the great advantage of any plan which can be limited, as far as possible, to the artery only.

In practice digital pressure has been found to be far less painful than that by tourniquets of whatever construction, and less painful also, as I believe, than that by the weight, though I have often seen this borne with little distress. This depends chiefly, as it seems to me, on the care with which it can be graduated, so that no unnecessary force whatever is employed. If two well-trained assistants act together—one observing the pulsation while the other compresses,—the stoppage of the pulse can be effected with the minimum of force, and occasional intervals of repose can be given to any portion of the skin which is becoming irritated.

Vanzetti† records a case in which the pain in the aneurism, which had been very acute, was at once relieved by digital pressure; Mr. Holt‡ one in which the patient slept during the application of the pressure.

Fischer refers to 17 cases in which instrumental pressure was so painful that it had to be given up; and in 11 of these digital pressure was successfully carried out. In Broca's work 29 cases are given in which instrumental pressure was intolerable—in fact, the invention of digital pressure seems to have been due in great measure to the pain caused by the instrument.

The applicability of compression in cases of disease of the artery itself is a circumstance which should never be lost sight of, and which is illustrated by numerous examples in all parts of the body. Thus the striking case of axillary aneurism under Rizzoli's care which I narrated last year, and in which the subclavian could be felt enlarged and hardened by atheroma, could never have been treated with any hope of success by ligature, but was cured by pressure.

An interesting example in the case of popliteal aneurism is quoted from Gallozzi by Fischer.§ Here there was a popliteal aneurism, which is said to have been "diffused," of the size of the fist, and the femoral artery could be felt, atheromatous, as high as the external iliac. Continuous digital pressure for nine hours took away the pain in the tumour, and next day the disease was cured.

Such pressure is far more safely applied by means of the finger than by any tourniquet, since it is of the last importance not to use any excess of force over an atheromatous or ossified artery.

The rapidity of the cure in digital pressure is one of its great advantages, closely connected with the less force which it requires and the less pain which it produces. The patient is thus enabled to bear the prolonged application of an efficient amount of pressure, and cure is often produced with astonishing rapidity.

In Fischer's tables an average has been struck of the length of time occupied in the treatment of the successful cases of digital and instrumental compression respectively. This table refers to aneurisms of all the various arteries of the body, but we may apply its general conclusions to popliteal aneurism only without risk of error. It shows that 34·7 per cent. of the cases of digital pressure were successful in the first twenty-four hours, while only 10·1 per cent. of those of instrumental pressure were so; and 86 per cent. of the former recovered in the first fortnight, against 53 per cent. of the latter. The mean time required for cure in the list of cases of digital pressure was about three days, and of instrumental pressure about fourteen days.

Digital pressure is commonly spoken of as being much more difficult to carry out properly than instrumental pressure is. On that subject I am very far from being convinced. It is true that it takes little trouble to have an instrument screwed on, anyhow. But to apply instrumental pressure really in an efficient manner, constant care is necessary, and the patient ought to be watched by the surgeon himself or some perfectly competent assistant during the whole time of treatment. This constant supervision during a much longer period may certainly counterbalance to a great extent the physical labour of the manual pressure.

The difficulty in making effectual digital pressure varies much in different cases. Some persons have more knack as well as stronger fingers than others, so that one man will suppress the pulsation with ease where another can only do so with great labour; and usually the inconvenience to the patient varies with the trouble to the attendants. Pressure which is easily applied is also, as a rule, easily borne. Lay assistants must be carefully instructed in the method of applying pressure, and in the direction in which the artery is most easily caught; and, if possible, it is well to combine a professional assistant with each. Assistance is sometimes usefully given to the compressing finger by a weight laid upon it, as recommended by Mr. Holden.* He says, in reporting a case of successful digital pressure in popliteal aneurism (combined, however, with instrumental): "We devised a plan of assisting the fingers by superimposing a weight upon their ends. The weight consisted of a long slender bag filled with 12 lb. of shot. By this means we saved muscular force, and enabled the fingers to act for nearly two continuous hours, without any fatigue or inconvenience except a little numbness over the nails."† On this plan thirty hours of continuous pressure were perfectly well borne. The pressure was then left off, as the aneurism appeared cured; but the symptoms recurred in about twenty-six hours, and ultimately the cure was completed by instrumental pressure. Mr. Holden remarks that, had the pressure been kept up for forty hours instead of thirty in the first instance, it would in all probability have been completely successful.

Unless some such assistance is given to the fingers, few persons can keep up pressure efficiently for more than about ten minutes or a quarter of an hour; and it is necessary, therefore, to organise a staff of compressors, who take charge of the artery in pairs—one pressing while the other watches the aneurism, and changing as soon as the fingers become at all tired or unsteady, care being taken that the artery is not released from pressure as the hands are changed.

Digital pressure should always be made with sufficient force to stop the pulsation of the tumour, and no more. The plan of allowing a perceptible amount of circulation to go on through the tumour, which was a favourite one in my younger days, and was recommended by the Dublin surgeons, is now, I believe, allowed not to have any advantage. It is quite possible that some blood may be really passing through the aneurismal sac, even though no pulsation can be felt; but however this may be, it is certain that the total obliteration of pulse in the aneurism does not retard, but, on the contrary, greatly hastens the cure, and that in some cases the disease has been cured in a very short time. The shortest times which I have found assigned to the cure of a popliteal aneurism are in the following cases. One, under the care of M. Sernin Fontan,‡ where the tumour (the size of a goose's egg) became quite solid after three

* Liverpool Med. and Surg. Reports, vol. v.
† Gaz. Méd., 1858, p. 628, Case 5. ‡ THE LANCET, April 2nd, 1870.
§ Case 46 in Fischer's table from Gallozzi, Filiatre Sebezio, May, 1857.

* St. Bartholomew's Hospital Reports, vol. viii., p. 140.
† The same plan, or one essentially similar, was employed by a French surgeon—I believe Chassaignac; but I have mislaid the reference.
‡ Gaz. des Hôp., 1860, p. 4.

hours and a half of compression, though pressure was continued as a precaution for four hours more. The permanence of the cure was verified in this case. Dr. Mapother has related one* which was cured in five hours and three-quarters. Mr. Bryant's patient above alluded to cured himself in four hours and a half. In Blackmann's case† the patient was cured by three hours of compression in the groin. And the shortest time of all is one of Vanzetti's cases,‡ where only two hours and a half were consumed in the treatment.

Such very rapid cures will, of course, be only seldom met with, but the averages stated above show that in about one-third of the successful cases the cure has been obtained in the first twenty-four hours. Now it is almost always possible to keep up continuous pressure for this length of time in any patient who is not too irritable to bear pressure at all. And if so kept up properly, I have no doubt most cases would either be cured or in a fair way of being so. But when the attempt has been carried on for this length of time without success, it must in general be suspended from exhaustion of the patient or of the assistants, and now it may be advisable perhaps to supplement it with instrumental pressure, or to use digital pressure in the intermitting manner for about two hours at a time twice a day. The sac will by this time probably have become well lined by fibrine, so as not to yield to the distending force of the circulation when readmitted, and fresh accretions will be added with each compression, until the whole tumour is obliterated.

Clinical Lectures
ON
AFFECTIONS OF THE BLADDER IN RELATION TO OVARIAN, UTERINE, AND PERI-UTERINE DISEASES.

Delivered at St. Thomas's Hospital,

BY ROBERT BARNES, M.D.,
OBSTETRIC PHYSICIAN TO ST. GEORGE'S HOSPITAL;
EXAMINER IN OBSTETRICS TO THE UNIVERSITY OF LONDON AND THE ROYAL COLLEGE OF SURGEONS.

LECTURE III.

Partial Retention. Incontinence. Cystitis. Abnormal matters in Urine: blood, pus, fæculent matter, hair, fat, bones, albumen—significance of. Malignant Disease of Bladder, primary and secondary.

A CONDITION allied to retention in nature is *partial retention*. Although rarely so dangerous in its effects, death may result. The bladder is never completely emptied; and the desire to empty it is left unsatisfied, frequently inducing more or less futile straining efforts. A familiar cause of this is procidentia of the uterus. The bladder, intimately connected with the neck of the uterus, is dragged down by the uterus in its descent. A pouch is thus formed below the ordinary level of the urethra and its meatus. In this pouch urine accumulates, and the retention is apt to give rise to phosphatic and lithic concretions. This condition is easily verified by passing the sound or catheter into the urethra. The instrument passes directly downwards in front of the procident cervix uteri, and its point may be felt near the os uteri, quite outside the vulva. The worst consequences of this condition are generally averted by the variable state and degree of the uterine prolapsus. In the recumbent posture, and often during rest, the uterus rises into the pelvis, carrying the urinary pouch up with it, when the urethra comes into a position to drain it. In many cases the woman overcomes the difficulty by pushing up the procident uterus with her finger during micturition. These facts indicate the importance of keeping the uterus at its proper level by means of suitable pessaries or operations. In extreme cases the most disastrous results may follow neglect. Thus the late Dr. J. J. Phillips related* a case in which fatal hydronephrosis ensued. The uterus protruded externally, the fundus being under the symphysis pubis. The woman died of typhoid symptoms, the result of gradual disease of the urinary apparatus. The ureters were dragged down below the arch of the pubes, where they were obstructed and became enlarged; the kidneys were wasted; purulent urine filled the urinary passages. The preparation is in Guy's museum.

A similar retrograde hydronephrosis may be due to long-continued partial obstruction and retention from cancer of the uterus invading the bladder. The consequent atrophy of the kidneys in the end leads to suppression of the secretion, and, as in Dr. Phillips's case, to uræmic coma and death.

Next to retention of urine, perhaps, the most troublesome complaint is a too frequent desire to empty the bladder. In some cases the want is irresistible and incessant. And yet there may be no disease of the bladder or kidneys. All may be due to abnormal conditions of proximate structures.

It may be stated generally that all the causes which ultimately lead to retention, commonly in their earlier stages cause irritation of the bladder, expressed by frequent desire to empty it. Hence the paramount importance of taking this symptom as a warning to institute a local physical examination. Thus I have known a woman die from the consequences of retention caused by retroflexion of the gravid uterus, who for two months previously had been attending a surgeon for irritation of the bladder, the cause not being suspected.

Cystitis, subacute or chronic, is almost sure to ensue sooner or later from partial retention of urine, just as we have seen acute congestion and inflammation ensue from complete retention. And since most of the causes of retention, partial or complete, arise externally to the bladder, we might easily fall into error if we sought exclusively in the urinary apparatus for the cause of cystitis.

Subacute cystitis arising from lesser degrees of retention or other causes—such as an irritating condition of the urine—may pass also into chronic cystitis. This is sometimes due to tubercular deposit in the urinary mucous tract. It is possible that this may exist independently of tubercular matter in the genital tract; but it is rare for the urinary tract to be affected alone. Evidence of other organs—as the lungs—being involved will seldom be wanting. Dr. West, however, thinks that inflammation of the kidneys and bladder may occur as secondary to tubercular deposit when yet no other symptom of tuberculosis is present; and, further, that such a disease may run its course to a fatal issue without phthisis supervening, even without any deposit of tubercle in the lungs or elsewhere than in the bladder and kidneys, and the absorbent glands in their immediate vicinity. I think I have seen subacute or chronic cystitis arise out of puerperal fever apart from any direct injury from severe labour or retention. It may also take its origin from exposure to cold whilst the organ is in a susceptible condition.

Chronic cystitis or irritation may arise from vesico-intestinal fistula, giving passage to portions of fæcal matter into the bladder. The case is rare, but I detected this communication in one instance by microscopic examination of some semi-solid matters passed in the urine. The case was that of a young lady who had recovered from typhoid. No doubt ulceration of the intestine had occurred, attended by peritonitic adhesion to the bladder, and thus perforation was effected into this organ, instead of the more usual escape into the cavity of the peritoneum.

In another case feculent matter was frequently found in the urine. A tumour was detected in front of the uterus, and apparently between this organ and the bladder. On post-mortem examination, we found a dense mass of fibrinous substance gluing the small intestine to the fundus of the bladder. This mass had been perforated by a fistulous communication between the two organs. The cause of this appeared to be malignant disease beginning on the mucous surface of the small intestine. Blood and pus had preceded the appearance in the urine of fæces. The use of the microscope here was very manifest. Dr. Ord, to whom I gave samples of the urine, without telling him anything of the

* Brit. Med. Journal, Oct. 5th, 1867.
† Phil. Med. and Surg. Reporter, 1861, and Med. Times, Nov. 2nd, 1861.
‡ Vanzetti; Gaz. des Hôp., 1862, p. 519.

* Obstetrical Transactions, 1870.

case, gave me a correct account of the food upon which the patient had been sustained.

The characteristics of chronic cystitis are usually: great irritability of the bladder, marked by frequent and urgent calls to pass urine even when there is no accumulation; the presence of mucus or pus in the urine; and pain above the pubes. Mere irritability may be due to proximate disease, as in the uterus; but where the quantity of mucus in the urine is large the mucous membrane of the bladder is affected. Local examination made by the catheter brings out pain when the point of the instrument touches the wall of the bladder, and the finger applied to the anterior roof and wall of the vagina evokes the same symptom.

The consequence of this distressing complaint is frequent spasmodic contraction and gradual thickening of the muscular coat. The bladder seems to contract upon itself; it is no longer able to hold urine enough to be distended to its normal dimensions. After a time ulceration of the mucous membrane is apt to follow; then the muco-purulent admixture is increased, blood may appear, and the irritability and pain become more severe.

The treatment consists in the employment of all those means best calculated to diminish the irritating qualities of the urine. The digestive organs will therefore demand care. Everything known to promote dyspepsia and lithiasis or oxaluria must be avoided. Demulcents and then tonics will be useful. Where lithiasis is present, alkalies, as soda, potash, or lithia, will be serviceable; but more commonly the condition to be remedied is the phosphatic, with tendency to ammoniacal urine. Here moderate doses of mineral acids and tonics will be most useful. Advantage has sometimes been gained from washing out the bladder by injecting weak acid solutions or demulcent and sedative fluids; but in some cases the irritability of the bladder is so great that this treatment is resented, and must be given up. Warm baths offer great relief when the pain or spasm is urgent.

In retention, partial or complete, it is of the utmost importance to use a male elastic catheter. The ordinary silver female catheter is quite inadequate. It may indeed draw off a considerable quantity of urine, and yet leave the patient unrelieved. In many of these cases the bladder seems to be compressed into two loculi or pouches. You may empty one, and think your work is done. The short catheter may never have reached the more distant pouch. Now a long flexible male catheter will worm its way along a tortuous channel, and run into the furthest part of the bladder. On the principle that the greater includes the less, doing all that the lesser can do, and more, I have come to the conclusion that the male catheter should always be used. For many years I have not possessed a so-called female catheter. The flexible male catheter has the further advantage of having a longer portion protruding beyond the vulva, thus conducting the urine more easily into the receiving vessel.

Irritability of the bladder, apart from cystitis and catarrh, is a very common symptom or effect of uterine disease. Hypertrophy, congestion, and inflammation of the cervix uteri especially cause it. Malignant disease of the cervix is almost sure to produce it. It is a frequent consequence of anteversion and anteflexion of the uterus, especially if the body be much enlarged, so as to press upon the bladder. This is a familiar symptom of early pregnancy, in which condition the enlarged uterus is commonly anteverted. It may happen that the bladder-distress becomes the most troublesome effect of the uterine disorder, so that attention is concentrated upon it to the neglect of the primary condition.

Inflammation of the uterus not seldom entails, through the disturbance it causes in the digestive function, an altered condition of the urine. Thus we see an excess of phosphates and lithates and mucus, and the irritation attending the abnormal character of the urine aggravates the local suffering from the disease of the uterus.

It may also cause irritation of the bladder, manifested in incontinence and dysuria by mere contiguity, just as inflamed hæmorrhoids in the male may irritate the contiguous bladder. This is further illustrated by the increased dysuria, sometimes amounting to partial retention, which occurs at the menstrual periods.

Incontinence of urine may be due to a fistulous communication between the bladder and the vagina. This is usually discovered some days, perhaps a week or a fortnight, after labour. The opening is not made immediately by direct force, but is established gradually as the result of necrosis and sloughing of the part which was subjected to greatest pressure. This process takes some days to be completed. It not seldom attends cancer, being due either to perforation of the bladder or to loss of sphincter-power from extension of the disease.

But incontinence may be the result of disease of the nervous centres. Thus I have been consulted in a case of incontinence where it was suspected that a fistula existed, but the infirmity was really due to progressive general paralysis. Of course, in advanced cases of paralysis, other nervous symptoms are so predominant that the bladder infirmity is readily referred to its true cause. But the interesting point in relation to our present theme is that the bladder infirmity may be the earliest symptom to attract attention, and then it is likely to mislead.

Abnormal excretions from the bladder are usually more characteristic of functional disorder or disease of the nutritive organs of the kidney or bladder than of retention, irritability, or incontinence. But we should often be led astray if we assumed that this was universally the case. Thus blood in the urine may be symptomatic of calculus in the kidney, or of malignant disease of the bladder; but it may be simply a form of vicarious menstruation. Blood in the urine, again, may accompany albuminuria induced by pregnancy, as I saw in a case at the London Hospital. She applied on account of hæmaturia; when this intermitted we found albuminuria. There was dropsy throughout.

Not seldom blood mixed with the urine may be traced to a vascular tumour of the meatus urinarius, or to a vascular state of the urethra.

Pus, again, may denote disease of the kidney or bladder; but it may find its way into the bladder from the most singular and unsuspected sources. Thus I am now attending a case with Dr. Crisp, in which, for many years, large quantities of pus are occasionally passed in the urine. The source of the pus is not the bladder. It finds its way into the bladder from a dermoid cyst, which has made for itself another opening near the umbilicus. Pus frequently comes from this external opening. A probe passed into it finds its way into a cavity downwards for a distance of four or five inches, whilst another sound passed into the bladder runs up an equal distance, so far, indeed, that the points of the two instruments cross each other. Although they did not touch, there can be no doubt that both run into the same cavity. This patient was seen twenty years ago by the late Dr. Ramsbotham, and the case was reported by Dr. Coward in THE LANCET at the time. It is remarkable how in this case the bladder retains its healthy state, notwithstanding the irritation it is subjected to. The day after passing a large quantity of pus, clear urine is voided, and irritation subsides.

Hair, fat, teeth, may find their way into the bladder and urine. They afford conclusive evidence that a dermoid cyst has contracted adhesions with the bladder and established a fistulous communication. Bones of fœtal character may arise from an extra-uterine gestation-cyst. In these cases, signs of dysuria, of incontinence, of irritability of the bladder, perhaps the appearance of blood or pus, will have preceded the discharge of the hair, fat, teeth, or bones. And in most cases the tumour whence these matters proceeded may be made out by careful vaginal, rectal, and abdominal palpation, aided by the sound.

The most unequivocal indications of disease of the kidneys or bladder are the alterations in the chemical qualities of the urine. Thus, excess of phosphates or lithates, or the presence of albumen, of sugar, of oxalic acid, points to disorder of the nutritive functions. It must not, however, be forgotten that these conditions are sometimes secondary upon conditions of the ovaries and uterus. For example, metritis, acute or chronic, frequently induces such a disturbance in nutrition that phosphates and lithates appear in superabundance in the urine. So mucus and pus may follow an acute or chronic cystitis ensuing upon retention of urine from any of the causes we have discussed. And albuminuria may sometimes be traced back to pregnancy, even in cases where eclampsia was not manifested. The excretion of sugar also may have begun under the influence of pregnancy. It is true that albumen and sugar usually disappear from the urine soon after pregnancy has been brought to a term, but occasionally the morbid process,

once started, persists after the cessation of the original cause. Bearing in mind this association of albuminuria, sugar, and pregnancy, we should not omit, when these abnormal ingredients are found in the urine, to institute a careful examination to determine the presence or absence of pregnancy.

Primary malignant disease of the bladder is very rare in women. Dr. West relates one observation so complete that I am induced to quote it in lieu of giving an abstract descriptive of the affection. A woman, aged sixty-two, had suffered for a year previously from pain in the region of the bladder, aggravated after passing water, the calls to which became more frequent than natural, while at the same time her urine grew turbid, and deposited a thick sediment. Blood now frequently appeared in her urine; sometimes in small quantities, sometimes in clots, and once in very large quantity. She had of late suffered from pain in the back. A surgeon introduced a catheter, which was followed by considerable hæmorrhage, which lasted for several days, and was apparently stopped by gallic acid. On admission the pulse was 80, soft. No tumour was perceptible in the abdomen, but firm pressure immediately over the pubes caused some pain. The uterus was high up, small, healthy. In front of the uterus, pushing it into the posterior half of the pelvis, was a firm, somewhat irregular growth, reaching from the anterior half of the pelvis in the situation of the bladder. This growth was perfectly immovable. It seemed to be connected with the pelvic walls; was somewhat tender on pressure. It occupied the whole anterior half of the pelvic brim, though not dipping much into the cavity. The urine was pale, alkaline, depositing ropy mucus, and showing crystals of triple phosphate and cells of nucleated epithelium. Shortly afterwards the woman met with an accident, and died of erysipelas. The uterus and vagina were found perfectly healthy; but the whole posterior half of the bladder was occupied by a medullary growth, with an irregular surface, which projected into the cavity of the organ, its substance being in part firm, in part almost semi-fluid. The anterior half of the bladder was quite healthy, as was also the substance of both kidneys, except that the right ureter, being involved in the diseased mass, was dilated to three or four times its natural size, and the infundibulum of the right kidney was enormously enlarged.

In this case the distinctive character of malignancy was the hæmorrhage. The tumour felt in front of the uterus might be due to a blood-mass in the cellular tissue connecting the uterus and bladder, or in the vesico-uterine peritoneal pouch. The profuse bleeding also distinguishes the disease from the other causes of *hæmaturia*. These are:—1. *A calculus*. In this case the blood is seldom more than a few drops, and the catheter will detect the stone. 2. *Foreign bodies*. The most inconceivable things have found their way into the bladder; hair-pins. These give rise to cystitis; phosphatic deposits collect around the foreign body. The sound will detect these as well. 3. The hæmorrhage may be *vicarious of menstruation*. Here the quantity is not so great as in malignant disease; it occurs in comparatively early life, and the menstrual irregularity is marked by other symptoms.

Secondary malignant disease of the bladder is unfortunately too common. It arises mostly as an extension from cancerous disease of the cervix uteri. The invasion of the bladder is then marked by cystitis, but this symptom, although adding much to the patient's distress, is now but of subsidiary importance. Often the bladder is perforated from without by the advancing necrotic or ulcerative process, so that the urine escapes involuntarily. But this symptom, Kiwisch rightly observes, when occurring in the course of cancer of the uterus, is not to be regarded as certain evidence of perforation of the bladder, for this symptom is frequently only the consequence of carcinomatous infiltration of the neck of the bladder, and especially of that part corresponding to the sphincter, by which it is hindered in the performance of its functions, and thus permits the urine to run off.

Opium in some form or other is indispensable in the treatment. It may be given by the mouth, by vaginal pessary, by rectal suppository, or by subcutaneous injection.

THE Preston Waterworks scheme has just been completed, which will afford an additional supply to the town of 6,461,337 gallons of water per day.

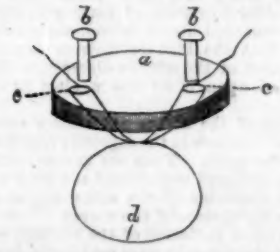
ON SCARLESS ERADICATION OF NÆVI.

BY RICHARD BARWELL, F.R.C.S.,
SURGEON TO CHARING-CROSS HOSPITAL.

IT need scarcely, at the present day, be pointed out that nævus maternus should not be made the subject of operation unless some circumstance render interference necessary. Such circumstance may be rapid growth, inducing danger by hæmorrhage; and such danger may be increased by position, as, for instance, at the mastoid process, where a nævus may, by growth in size and complexity, become a cirsoid aneurism or aneurism by anastomosis. Position may, however, of itself be sufficient to call for operative measures, since, for instance, a female child of the upper walks of life, with a disfiguring nævus about the face, neck, or arms, should hardly be left thus marked; and here also it is of great importance to choose such operation as shall leave no scar behind—hence such as shall destroy no skin, not even that discoloured by the growth to be eradicated.

The mixed nævus therefore requires, if no scar is to be left, two forms of treatment, which may be carried on simultaneously—one for the skin portion and another for the subcutaneous. Subcutaneous strangulation of a nævus, effected by passing a string round the base of the tumour and tying it as tightly as possible, is a painful process replete with danger; it frequently fails in its purpose, as the tumour sloughs, and the slough either involves the skin and comes out by it, or it does not implicate the skin, and the dead morsel becomes a source of great danger. These inconveniences are due partly to the material used, but chiefly to the rapid and complete strangulation, as it were, by a blow. A mixture of slow strangulation and of cutting avoids these contingencies, as I have tested by many cases and several years' experience.

The operation may be thus performed:—Having carefully made out the limits of the nævus both as to depth and circumference, a needle armed with not too fine a wire is passed through the skin, half round the tumour, and out again opposite the place of entrance; the needle is then again introduced at the same puncture by which it had just emerged, and, passing round the other side of the tumour, makes its final exit at the opening first made. In certain cases, large size or peculiar shape of the tumour may render it necessary to bring out the needle twice instead of only once. However that may be, the effect is to enclose the base of the tumour in a wire loop, both ends of which, emerging at the same opening, are under perfect control. These might merely be twisted together till the requisite tightness is attained, but in this practice certain inconveniences arise which I have obviated by another expedient. A vulcanite oval plate, about three-quarters of an inch long and an eighth of an inch thick, has two holes bored obliquely through its thickness; and on its external surface two little studs project close to where these holes emerge, and where also they are furthest apart. (See figure.) By bringing



a, Vulcanite disc. *b*, Brass studs. *c*, Holes pierced obliquely in direction of dotted lines. *d*, Wire looped as in surrounding a nævus.

the end which passes by the right side of the nævus through the left hole, and *vice versâ*, the wire is made to cross, while the oblique direction of the holes permits it to run smoothly. The surgeon, having thus arranged his appliance, draws upon the wires until the nævus is rather tense, and then

twists each end round the nearest stud. A piece of lint, slit so as to bestride the wire, is introduced between the skin and the vulcanite button, and prevents any undue pressure by the edges of the plate.

On the third or fourth day the wire will have become somewhat loosened; one of the ends is to be untwisted from the stud, drawn tight, and again secured. This process is to be repeated until the wire comes away, when, as must be evident, it has not merely strangulated, but has cut through the base of the nævus with all its vessels of supply; in fact, it has acted like a slow and sure écraseur. During this procedure some pus forms and escapes by the needle punctures, but the treatment is so painless that, except at the time when the wire is being tightened, the child suffers no pain, is not fractious, and remains quite well.

Thus the subcutaneous part of the nævus will be destroyed, and in many cases the cutaneous parts will at once begin to shrivel and to lose their morbid colour. In other cases this change is either very slow or will not take place without some aid. The best means of effecting this is to brush the coloured parts with strong nitric acid, leave it for a few seconds, and then to wash it off with an alkaline solution. Care must be taken not to leave on the acid long enough to destroy the skin or to produce ulceration. This had best be done while the wire is still encircling the base of the nævus.

CASE 1.—I was consulted by Dr. Paul regarding H. R——, aged eight months and a half, who had nævus behind the right ear, on Jan. 6th, 1875. The nævus was mixed, the cutaneous part nearly as large as a shilling; the subcutaneous, larger than a half-crown, was prominent and full; it swelled much when she cried, and had of late increased so rapidly that it was said to be at the above date twice the size it was ten days ago.

Jan. 9th.—I operated, under chloroform, with wire loop, so as to enclose a wide area.

11th.—The child was for twelve hours rather fractious, and took less food, but has now quite recovered her usual good temper and appetite. Tightened wire.

13th, 15th, 17th.—On each of these dates I tightened the wire. The child is in good health and spirits, only crying when she comes to see me.

19th.—The wire came away. Although I have brushed over the reddened part of the nævus twice with nitric acid, there is still some skin discolouration. I have touched it again, and advised that we should wait to see if it disappear.

Feb. 1st.—The subcutaneous part of the nævus is all gone, and the part is quite flat, as on the other side. Only a spot or two of redness remains, all at circumference of the old discolouration. A touch of nitric acid will destroy these.

26th.—I saw this child by chance. The nævus has quite disappeared, without leaving any mark or scar.

CASE 2.—A. L——, aged four months, was brought to me on the 13th May, 1874, with a thick and rather large nævus on the left cheek-bone. It was chiefly subcutaneous, and was said to be growing rapidly. The actual discolouration at the above date was irregular; its centre was about the size of a threepenny-piece, but two claw-like processes ran from it upwards, about one-third of an inch long. The child was out of health, with diarrhœa and sickness. I prescribed some medicines.

May 19th.—The child having recovered from the gastric disturbance, this day had been fixed for the operation. The nævus in the meantime had much increased in size; the two outgrowths from it had converged into one, and the coloured (cutaneous) portion had also extended in the opposite direction. The subcutaneous part was also much larger. The whole became thicker when the child cried, and even the deeper part showed a dusky bluish tinge through the skin. In one part the skin portion of the growth seemed prone to burst. I operated after the method above described. At the upper part, where the tumour verged on the eyelid, great care had to be used. The wire was drawn moderately tight.

22nd.—The skin part is paler and less full; the whole tumour less turgid. Wire drawn a good deal tighter. The coloured part of the nævus touched with nitric acid.

24th.—Tumour much shrunken. Pus escapes in small quantity from the needle punctures. Nitric acid again used.

The same treatment went on for twelve days, when the wire came away. The cutaneous part had disappeared, except three little lines which had formed part of the circumference of the tumour. These were continued under treatment for three more visits, extending over nine days, when they had disappeared. A little depression or dimple of the left cheek was all that remained of the tumour.

On the present occasion space precludes my saying anything concerning the treatment of varicocele by a similar method. I therefore propose to describe the method of operating, and to give a few cases very shortly.

George-street, Hanover-square.

PARTIAL HEMIPLEGIA WITH AMNESIA OCCURRING AFTER SCARLATINA.

BY B. ADDY, M.D. LOND.

THE following case of partial hemiplegia with amnesia is interesting both from the age of the patient and its apparent immediate relation to an attack of scarlet fever; for though frequent as a result of embolism, &c., and in adults, I do not remember meeting with a typical case of amnesia in one so young, nor is it frequently observed as a sequela of one of the specific fevers. The history of the case is briefly as follows:—

William R——, aged fourteen, was sent to the Fever Hospital in connexion with the Royal Infirmary, Manchester, and admitted, under the care of Dr. Wilkinson, on February 4th, 1874. During the first three or four days his temperature did not reach 100° F., morning or evening, but on the morning of Feb. 10th the thermometer registered 104°; pulse 124. The temperature and pulse then gradually declined until the 14th, when the temperature was 99°; pulse 78. During this time he had complained of soreness of throat, which was inflamed, and the tonsils swollen. A slight scarlet eruption appeared on the skin, followed by desquamation; the tongue also presented the appearance so often met with in scarlatina.

He apparently recovered from this attack, remaining, however, slightly deaf upon the left side, but no otorrhœa; complained of headache, and vomited occasionally. The tonsils remained large, and were swabbed with a solution of nitrate of silver.

He gradually improved until Feb. 23rd, when during the night he was seized with convulsions, which left him insensible, and when seen about 1.30 P.M. he was still unconscious. Temperature 103·7°; pulse 100; pupils dilated, acting feebly to light; bowels constipated. He remained in an unconscious state about twenty-four hours, when consciousness gradually returned. The right arm was weaker than the left, but not completely paralysed.

Feb. 24th.—Temperature 103·2°; pulse 100. More conscious, but seemed quite stupid.

25th.—Dr. Wilkinson ordered a blister to be applied over the left temporal region, head to be shaved, also a mixture containing three grains of iodide of potassium three times a day. Bowels opened by castor oil.

26th.—Better. Temperature 99·5°; pulse 66.

He gradually became more sensible, and able to speak a few words, the deafness improved, and tonsils diminished in size. He now manifested well-marked amnesia; when shown a penknife, he could not tell us its name, but tried to open the blade; he failed to name the simplest things, as bottle, pencil, watch, key; he was unable to write his own name, only reaching the first letters, when he gave up the attempt. Two or three days after, when shown a watch and asked the time, he could not tell, but pointed to the minute and hour hands and named, though incorrectly, the figures at which they stood; on showing him a key, he pointed to the door, indicating its use, but could not tell us its name, and when told the name he could not repeat it, but looked very puzzled, and simply said, "Could, could," meaning, no doubt, that he could name it.

On the 6th March I tried his ability to write. He could not write his own name until he saw it on the medicine label, when he soon copied it; similarly he could not write "Manchester" until he saw it upon the medicine bottle, when he again copied it at once. He could read aloud from

a book, but omitted some words altogether and mispronounced others.

Upon the 8th he told the time by my watch correctly and without hesitation, could now say the word "key," and pointing to several articles in the room, named them without being asked, as if proud of his ability. Is much improved in every respect. Some five or six days since he had some involuntary twitching on right side of the face, and seemed more stupid for a few hours.

March 14th.—Is quite sensible when addressed, and knows the names of things. I now tested him both in reading and writing. On being asked to name some capital letters, he was partly successful, but failed several times, or if he answered correctly, did so only after some hesitation. In repeating the Lord's Prayer, he omitted some of the words altogether. He afterwards wrote out the Lord's Prayer for me without the book, but spelt about thirteen words wrongly and omitted several words entirely, but says he could write it correctly before he was ill. He wrote it correctly from the book, however, as in the previous cases, with his own name and the word "Manchester." Subsequently he repeated and also wrote out the Lord's Prayer (without the book) with scarcely a mistake. There was still some weakness of the right side.

He was discharged on the 29th, and when seen subsequently was quite well. He told the nurse that he knew what the objects were which were shown him, but could not name them.

Remarks.—This case only calls for two or three remarks. I think the sequence of events was as follows:—A mild attack of scarlatina, followed by meningitis and thrombosis of the left middle cerebral artery, interfering with the proper vascular supply and nutrition of that portion of the brain supplied by it. This explanation seems to me more likely than that there was simply embolism of the artery, for the pain in the head on the left side, with vomiting, &c., previous to the convulsive attack, followed by partial hemiplegia and totally unconscious state, clearly point to some morbid action antecedent to the actual attack of convulsions with insensibility, which was probably coincident with, and caused by, the cutting off the blood-supply through thrombosis of the artery.

It is interesting also to notice in the amnesic patient (as in this case), that whilst he is unable to write from dictation or memory correctly, yet he can copy a printed page without any difficulty and with few mistakes. Of course it may be said that this is due to imperfect education and inability to spell the words, but that it was not so here is clearly proved by the boy subsequently writing the Lord's Prayer correctly without the book; and though fourteen years old, and more than usually intelligent for his station of life, he utterly failed to write his own name until he copied it from the medicine bottle, although afterwards he could write it correctly. I have by me several specimens of his attempts at writing, from which one can see at a glance that it was not through imperfect education that he failed to write when the words were dictated to him. This subject will be found fully treated of, and cases mentioned, with a facsimile of what one patient wrote from copying and from dictation, in a paper by Dr. Bristowe in the 2nd volume of St. Thomas's Hospital Reports.

Southport.

THE DANGERS OF CHLOROFORM, ETC., AND THE NITRITE OF AMYL.

BY C. BADER,
OPHTHALMIC SURGEON, GUY'S HOSPITAL.

SOME years ago, when nitrite of amyl was first used at Guy's Hospital, Dr. Goodhart and myself studied its effects, when taken internally, upon the bloodvessels in the healthy optic disc and retina. The effect is as rapid as it is striking. Three or four seconds after taking three drops of the drug on sugar the bloodvessels of the retina (arteries and veins, but especially the veins) become enormously dilated and gorged with blood, leaving no doubt as to simultaneously existing cerebral hyperæmia, with greatly accelerated circulation of blood.

Lately, after observing upon myself the effects of inhalation of the vapour of the nitrite of amyl, it occurred to me that in cases of faintness or of defective breathing or heart's action, while under the influence of an anæsthetic, nitrite of amyl might be of use. A few cases will show the encouraging effects of this agent.

CASE 1.—Given a mixture of alcohol, ether, and chloroform. Young man, hydrocephalic, inherited syphilis; iridectomised on both eyes; suddenly became pale, deeply insensible, with pulse and respiration very defective. Lint, with a few (three) drops of nitrite of amyl, was placed over nose and mouth. In two or three seconds a deep inspiration, followed by others, flushed face, quick pulse, and return of sensibility, were observed.

CASE 2.—Given chloroform. A boy, pale, fat, blue lips and cheeks, became suddenly very faint (blue lips, blood turning black, breathing very imperfect). The same quick result, with vomiting, followed the inhalation of the nitrite of amyl (three drops).

CASE 3.—Given chloroform. A middle-aged woman suddenly became blue in the face and stertorous (tongue falling back). Lint, with ten drops of the nitrite of amyl, was placed over mouth and nose. In a few seconds the blueness and stertorous breathing gave way to good colour, regular breathing, and sickness and vomiting, though no food had been given for several hours.

The most striking effects of the nitrite of amyl were the quick restoration of breathing, of a good colour, and the rapid appearance of sickness. It remains to be shown whether injection of this agent will have a still better effect.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

AT the ordinary meeting of this Society on May 4th, Mr. George Pollock, President, in the chair, the debate on the Germ Theory of Disease was resumed and concluded. Dr. Murchison made a powerful speech against the germ theory and in favour of the *de novo* origin of specific fevers. Mr. Wagstaffe and Dr. Goodhart detailed the results of their examination of blood and pus under different conditions, the conclusions arrived at by each observer being somewhat conflicting; while Dr. Payne, in a speech favouring the germ theory, directed attention to the precise significance of bacteria and their relation to putrefaction. Dr. Bastian made an effective reply, and the meeting (which was less fully attended than on the previous two evenings) adjourned. It is understood that a very large number of specimens are down for exhibition at the next meeting (May 18th)—the last of the session.

Dr. MURCHISON.—Mr. President: Not having much personal knowledge on the subject of bacteria, it was not my intention to have taken part in this debate; but, having been requested to do so, I will make a few remarks suggested by the observations of previous speakers and by my own experience of those diseases in which bacteria are believed to play so important a part. And, in the first place, I would advert to the very interesting speech of Mr. Jonathan Hutchinson at the last meeting, who endeavoured to draw a distinction between so-called virulent and contagious inflammations and the acute specific fevers. He maintained that "their phenomena and their clinical history prove that they are specific; that they run a definite course, protecting the organism afterwards; that they breed true, which is the test of specificity; that they seem to require that the germs which have produced them in one individual shall be applied, and that they are producible by no other means." For this class of diseases Mr. Hutchinson expounds the germ theory in its entirety, and he maintains that "these diseases are only produced by a germ in the sense of a seed, just as we may sow a definite crop in the

ground, and should know that we could not get a crop unless we sowed the definite seeds." But with regard to the acute specific inflammations, Mr. Hutchinson is of opinion that these facts do not at all apply to them. He thinks that it is unnecessary that for the spreading of them there should be any germs at all, and he rather seems to think that the products of inflammation are in these diseases the medium of contagion. In support of this view he states that the resulting disease very often differs according to the nature of the pus which is selected for inoculation. Now, while fully admitting that there are differences between some of the acute specific fevers and contagious inflammations, my own experience is quite opposed to the view that as regards the question under discussion there is that radical difference between them which Mr. Hutchinson would have us believe. In fact, I have long been in the habit of teaching that even among the acute specific fevers themselves there is not that agreement which Mr. Hutchinson and other authorities would ascribe to them, and that these diseases may, from an etiological point of view, be subdivided into groups which differ from one another quite as much as the acute inflammations differ from some of them. One or two illustrations of this I may mention. Relapsing fever is one of the acute specific fevers; it is, under favourable circumstances, eminently contagious, and yet we know that one attack of it confers not the slightest protection from a subsequent attack of the same disease. And the same might be said of diphtheria, of cholera, and of other diseases belonging to this class. Then again, there are differences as to their degree of contagiousness, and as to their mode of propagation. Some undoubtedly are very contagious, others again are very slightly so; some are propagated through the atmosphere as well as by inoculation, others are propagated by inoculation alone; some are propagated only in the presence of glaring defects of hygienic arrangements, others are propagated quite independently. Then as to the argument that the resulting disease differs in its severity according to the nature of the poison, a character which Mr. Hutchinson argued was peculiar to the acute specific inflammations, I must confess that it is a character which I have long been familiar with in many of the acute specific fevers. No doubt in the acute specific fevers the resulting disease is more influenced by the constitution than in the case of the acute specific inflammations, simply for the reason that they are on the whole of a more general and a less local nature than the acute inflammations to which Mr. Hutchinson specially adverted. But in that very Protean disease, typhoid fever, I have long observed, and have been in the habit of pointing out, that the type of the disease, and even the symptoms and the complications, vary according to the source of the poison. And even in the case of scarlet fever, we all know that different epidemics occurring at the same time vary very greatly in their type and in their malignancy. Lastly, I certainly, for one, must join issue with Mr. Hutchinson when he says that none of the diseases coming under the head of the acute specific diseases are producible except by germs derived from a person already affected with the same disease. The evidence which can be adduced to prove that such a disease, for example, as diphtheria or as dysentery—and here I may mention that dysentery holds a place among the acute specific diseases very closely allied to typhoid and cholera,—the evidence of its contagiousness, to my mind, is certainly quite as good as the evidence of the contagiousness of enteric fever; yet I say the evidence of these diseases being produced *de novo* appears to me to be so strong that I can scarcely fancy its being rejected by anyone whose mind was not already prejudiced in favour of the germ theory of disease. For these and other reasons I cannot agree with the view Mr. Hutchinson expressed, that there is such a great distinction between the acute specific inflammations and the so-called acute specific fevers. I think that if the germ theory be applicable to the one, it is applicable to the other, and if it is to be rejected for the one it ought to be rejected for the other; and, moreover, it must be remembered that propagation by means of germs has been claimed for the one as well as the other. And this brings me to say one or two words in reference to the germ theory of disease. If I understood my friend Dr. Sanderson aright, he told us that not much good could be expected to arise from discussing theories on this matter, and that we ought to confine ourselves to the discussion of facts; and the fact on which he specially insisted was this—that during the infective process, in the course of the different infective diseases, there was a great development of bacteria; but he refused to commit himself to an opinion as to whether these bacteria were to be looked upon as causal, or whether they were pathological results. Now this way of viewing the matter is all very well for a man of Dr. Sanderson's scientific caution; but unfortunately these observations—the discovery of bacteria in various infective diseases, and even Dr. Sanderson's own observations, and those made under his immediate superintendence—have been used by other writers as strong arguments in favour of the germ theory of disease, and also as supporting views having very great practical importance. In corroboration of this statement, I may call to the mind of the Society the letter upon typhoid fever which was published by Professor Tyndall in *The Times* a few months ago, in which it was announced that "Dr. Klein has recently discovered the very organism which lies at the root of all the mischief, and to the destruction of which medical and sanitary skill will henceforth be directed." I am sure that Dr. Sanderson himself would be the first to repudiate any such construction upon the observations of Dr. Klein, and I am quite sure of this, that most of those who have attended the discussions of the two previous meetings must be satisfied that no such announcement was justified by Dr. Klein's discovery of bacteria in connexion with the lesions of typhoid fever, and they will also be satisfied that this discussion will do good if it does nothing else than help to correct such an erroneous notion. With regard to bacteria, the following facts appear to me to have been established. In the first place, bacteria may be injected in large numbers into the blood of the lower animals and they suffer nothing. In the second place, bacteria exist in large numbers in certain tissues of the living body in a state of health. Thirdly, they are said to multiply very greatly after death in persons who have not died of any infective disease. In the fourth place (it seems to me that this is a very important observation), we have been told that bacteria are developed in large numbers in a vesication in the skin produced by a chemical irritant. In the fifth place, it is also said that in certain contagious fluids the more the bacteria multiply the less virulent the fluid becomes. Then, lastly, there is the statement, made on good authority, that neither bacteria nor bacterial germs can be found in certain fluids eminently contagious. I am not sure if this last statement was made in this discussion, but it was put forward very strongly a few years ago by Dr. Beale in one of his contributions to this subject. These facts, it seems to me, go a long way to throw doubt upon the causal relation between bacteria and the infective diseases. On the other hand, however, arguments have been brought forward tending in an opposite direction. In the first place, it is argued that although some bacteria may be perfectly harmless, it does not follow that other bacteria may not be very injurious indeed; but it seems to me that this argument has been very well answered by an experiment of Mr. Lister's, who showed that the same bacteria might produce very different results according to the circumstances in which they were placed. It appears to me that if this observation be correct the result depends not so much upon the bacteria as upon the surrounding conditions. Then, in the second place, it is stated that in erysipelas bacteria are found chiefly in what is called the spreading zone, and not in the interior of the diseased part; but really this does not appear to me to tell much one way or the other. I really do not see that this fact is incompatible with the notion that the bacteria may be pathological results. And then, thirdly, it is stated that in certain diseases, and especially in relapsing fever and in sheep-pox, there are peculiar forms of bacteria—bacteria which are only found in these diseases,—specific they may be called. But although no doubt this is the case, it seems to me that these peculiar forms may be accounted for by the peculiar soil in which what may be called the native bacterium of the individual is made to grow; because we also know this, that with regard to these minute growths the most

varied forms are assumed according to the soil in which they are cultivated. Now, it appears to me that this view of the case is confirmed by what we see and what we know of the so-called spirilla of relapsing fever. These minute bodies, which are found in the blood, make their appearance in large numbers during the primary paroxysm of fever; but before the crisis they disappear; they are absent entirely during the intermission, and with the relapse of the fever they return, and they again disappear with the second crisis. It appears to me that these appearances of spirilla and their sudden annihilation twice over are best accounted for by the varying soil in which they happen to be present—that is, that the soil of the fever process seems to be congenial to their growth, but that the moment the fever process is complete the blood is no longer compatible with their growth, and they suddenly disappear. Taking all the circumstances into consideration, then, it does appear to me that the discovery of bacteria in the bodies of persons suffering from various infective diseases has not, so far, done anything to corroborate the germ theory of disease. It does not follow, however, for this reason that the germ theory is untrue. There can be no doubt that a great many arguments may be brought forward in its favour. Many of these arguments were ably stated at the last meeting by Dr. Maclagan; but it seems to me that the more important arguments are arguments founded upon analogy rather than upon fact. With regard to the facts of pyrexia which Dr. Maclagan referred to, it seems to me that they can be quite as easily explained independently of germs as with them. And then there was one fact to which Dr. Maclagan attributed great importance as an argument in favour of the germ theory. It was this: he seemed to think that the cutaneous eruptions and the local complications of the various infectious diseases were best explained on the germ theory, because, as he has argued, the vital germs found in these organs which became the seat of lesions the second factor necessary for their multiplication and growth. This is an argument, however, which, to my mind, certainly has very little weight; for we find that arsenic exhibits very much the same sort of vitality. You find that inflammation of the stomach and inflammation of the rectum will be produced by arsenic, whether it is introduced into the intestinal canal or into the vagina, or the nostrils, or the skin. And it is to this predilection of certain medicines for certain organs and tissues of the body that we look for some of the greatest discoveries in therapeutics; some have already been made, many others no doubt will be made. There is one other argument to which it appears to me a great deal too much stress has been given in favour of the germ theory. It is alleged that the germs of disease show that they are vital by the length of time that they will retain that power, notwithstanding their being subjected to the most destructive chemical and physical influences. Now, I must say that I think this argument has been too much strained. There can be no doubt the germs of small-pox and scarlet fever will retain their vitality for a very long period indeed under favourable circumstances; but I myself know no facts that will show that, even with regard to two such contagious diseases as scarlet fever and small-pox, the germs will retain their vitality for any length of time if they are freely exposed to atmospheric air; and I think myself that this is an argument which has too often been overlooked—a strong argument opposed to the omnipresence of vital germs, of the germs of disease, which is a necessary element, you must remember, of the germ theory. There can be no doubt, however, that the strong argument in favour of the germ theory of disease is the multiplication of the poison. It is this which has been so aptly compared to the multiplication of living germs. It is contended that in chemistry there is no such process, that there is no instance in chemistry of a body which excites a chemical change being itself multiplied. Now, it does not follow, however, that although no such process in chemistry may have hitherto been discovered that no analogous process to that of contagion may not yet be discovered; and in reference to this I hold in my hand a letter which I have received from Dr. Lyon Playfair, calling my attention to one process which, at all events, is somewhat similar to what takes place in the multiplication of contagion. The substance he refers to is the substance oxamide. This substance, it is well known, is decomposed when it is boiled with acids, or with alkalies. It is decomposed into oxalate of ammonia, and if the acid selected be oxalic acid, as Dr. Playfair says, a small proportion of this oxalic acid will convert an infinite quantity of oxamide into oxalate of ammonia; in other words, oxalic acid, the substance which excites the change, will itself be multiplied, quite independently of the presence of any vital germs. In speaking of this matter, then, it seems to me that it is not right to speak, as is commonly done, of the poison multiplying itself—this in itself conveys a theory,—and that it is far more correct to say that the poison is multiplied, which is all, in fact, that we really know. It may so happen that it may hereafter be discovered that these diseases are propagated neither by germs nor by any chemical process, but that they may be propagated by minute particles acting by contact in producing other similar particles, just as we find in the case of tubercles or pus. This, however, is for the present a conjecture. There are two arguments, however, which have always appeared to me to be of great weight as opposed to the germ theory of disease. The first is this: the fact that the great majority of persons attacked with these infectious diseases recover. It seems to me very difficult to account for this on the germ theory. I know that it is said that they recover because the germs have exhausted all the material in the body necessary for their production and growth; but it seems to me that what occurs in relapsing fever is opposed to this explanation. In relapsing fever we have, in the first place, a febrile process lasting a week; then there is a complete intermission of another week, and then there is a relapse similar to, but somewhat shorter than, the first attack. Now if the germs exhausted all the material necessary for their growth in the first attack, whence comes the material necessary for their growth in the second attack—in the relapse? This material cannot be produced by the febrile process, because on the germ theory the febrile process is itself the result of the germs. Then the last argument is one to which I have already referred—namely, the circumstance that many of these infective diseases arise independently of a pre-existing cause. The germ theory renders it impossible to admit such a possibility, and in fact it may be said that those who uphold the germ theory practically deny that it is possible for any of these diseases to arise *de novo*; but, as I have already said, it seems to me inconceivable that anyone weighing carefully the evidence on this point, in reference to such diseases as pyæmia, erysipelas, diphtheria, cholera, dysentery, and typhoid fever, can come to any other conclusion than that such a thing is possible—the generation *de novo* of these diseases—except their minds are already pre-occupied by the germ theory of disease.

Mr. WAGSTAFFE.—I shall not venture, Sir, to express an opinion upon the explanations that have been given by the great English observers upon this subject as to the cause, the nature, and the meaning of these organisms, but I think the subject may be advanced somewhat by any record of the facts which go to point to the conditions under which these organisms are found in the human body. The most important of these observations have already been referred to by Dr. Sanderson and by previous speakers. They are particularly what Dr. Murchison has just referred to—the spirilla in relapsing fever, the bacteria in the blood in splenic fever, also the micrococci found in the tissues in sheep-pox and in small-pox. These observations, however, seem to have hardly received the attention they deserve, or the notice that one would have expected, at the hands of Dr. Bastian, and I had hoped that in the course of this debate we should have had the opportunity of hearing the experience of some of those who have paid attention to the conditions under which these organisms appear. During the last two years I have been engaged in looking at the secretions of the blood, particularly of certain classes of patients, partly in conjunction with Dr. Sanderson, partly independently, and of these it may be interesting and not unprofitable to state the results which have been obtained at the end of these observations. I would divide the results into two classes, negative results and positive results. With regard to negative results I may state a most important fact, one which has been proved before, that during health no organisms of any kind are usually seen in the blood; but under certain conditions, which it is very difficult to understand, organisms of certain kinds which we are not able to distinguish from those found in disease are found in what

we may look upon as a healthy state. For instance, a man named Marks was a curious example of this kind. He came under my notice while I was examining a number of cases of erysipelas. He was in an erysipelas ward. His blood was full of these organisms, as many as from ten to twelve being in every field of the microscope, actively moving about. I examined his blood under other conditions when he was quite well; he was still in the same ward; at times he was well, and at times he was ill; and he always showed a large number of these organisms.

Dr. BASTIAN.—May I ask which organisms?

Mr. WAGSTAFFE.—Small micrococci, active moving granules, dumb-bells, and sometimes beads. This case has its parallel in a case referred to by Dr. Sanderson in his lectures, in which a person in apparently complete health had in his blood a number of organisms; but Dr. Sanderson does not mention whether they were actively moving, whether they were like the ordinary micrococci that are seen in putrefaction. Then there is another class of negative cases. In a very large number of cases of subacute and chronic inflammatory disease there were no organisms whatever found, and it is an important point, I think, to notice that even in the pus of a chronic or subacute abscess none of these organisms were found in some cases that were examined, not by myself alone, but also by Dr. Sanderson. There is another case which I would particularly refer to—that of a woman in whom there were symptoms of what appeared to me to be pyæmia, but which turned out afterwards to be not true pyæmia at all, but simply suppurations in different parts of the body, and particularly in certain joints. In that case the pus was examined from the joints, the blood was also examined from the finger, and in neither case were any of these actively moving organisms found. Taking also a number of other cases indiscriminately, it was found, on examining the whole of the side of a large ward, that none of these patients, suffering from very different diseases, showed any definite signs of these organisms in the blood. Some of these patients were suffering from acute and subacute diseases; in some the temperature was standing at 102°, but in the majority the temperature was standing low; some had open wounds, some had no wounds at all; and none of these cases, taken indiscriminately on a certain day, showed any of these organisms whatever. Then, with regard to positive observations, the first point to which I would refer, as to the result of those observations, is that pus from an open wound always contained these microzymes, these small, actively moving particles. Then, with regard to the blood of patients suffering from suppurative fever, it always showed these microzymes. (I use that term as a general term, including chiefly small actively moving particles, and also dumb-bells, and chains apparently of the same bodies running together.) Then a third class of cases in which I nearly always found these particles was the class of strumous diseases, particularly affecting the bone. Here the particles varied apparently in number according to the intensity of the constitutional disease and the inflammatory process. In cellulitis also the same results were seen. Out of 24 cases examined as many as 20 showed in the blood the same moving particles, the number varying with the intensity of the disease. Then in all cases of pyæmia examined the blood contained these particles, chiefly dumb-bells and chains, and in addition to that usually a number of bodies not actively moving, apparently small plastic bodies—some actively moving, but the majority of them quiet. This observation particularly differs from that which Dr. Bastian has mentioned in his address. But I have recently had the opportunity of comparing the microzymes present in the pus of a pyæmic abscess and those present in the blood of the same patient; and these bodies were apparently identical. Then another class of cases in which they were nearly always found were cases of acute syphilis; and in those cases another appearance presented itself, which is rather curious—large plates of plastic matter, extremely granular, were seen in the field of the microscope, and the number of these particles varied with the intensity of the constitutional disease. In cases of another kind, not surgical, cases where there was no wound at all, cases of general fever, particularly of acute pneumonia, the same particles were also found in the blood, but in much smaller numbers. Lastly, I may refer to the progress of an ordinary case of a large wound of amputation. In some cases I have been enabled to follow the appearance of the blood in these cases from day to day. In one case, that of a boy whose thigh was amputated, five hours after the amputation the temperature being 102° F., there were as many as from twelve to twenty microzymes actively moving in each field of the microscope; and when it is remembered that each field represents only a very small portion of a drop of blood, and that each drop represents not more than a hundred-thousandth part of the body, we may assume that these particles are extremely numerous in the body in such a case. On the second day, the temperature being 101·2°, there were as many as twenty or thirty in every field of the microscope. On the third day, when the temperature was 101·6°, they were reduced to three or four in each field. On the fourth day, the temperature being the same, they were reduced to one or two, gradually diminishing in number until three weeks after the operation, when they increased in number with the appearance of an abscess in the thigh. After this they diminished and disappeared entirely. This is one of several cases which we have examined that follow on the same course. These facts seem to show a very close relation, as no one will hesitate to allow, between the appearance of these bodies and the active changes which are going on in the body—between the bacteria (using the term as a general one) and the inflammatory process. I do not wish, however, to venture an opinion upon these theories or the explanations which have been given, but I have laid these facts before the Society in the hope that they may be supplemented by other observations which I know have been made by members of the Society in the same direction.

Dr. GOODHART.—The observations which have been made are exceedingly interesting to me, because they somewhat clash with some observations which Dr. Moxon and myself have been making during the last two years; and inasmuch as positive facts are better than negative ones, although my facts may not be of so much value, it will be as well to detail them to the Society very summarily, so that they may go for what they are worth. Dr. Moxon and myself during the last few years have been particularly engaged in examining in the same direction as Mr. Wagstaffe. We have taken all classes of fevers, including cases of erysipelas, one or two cases of typhus, cases of measles, scarlatina, and one case of variola. The conclusion we rather came to was this: first of all, that it did not apparently seem to matter very much as to what the condition was that produced the fever, whether it was a specific fever, or a case of pyæmia, or surgical fever, or what not—all the cases seemed to have very much the same appearance. As contrasted with healthy blood, the appearances we noticed were that there was a very large amount of granular matter in the blood. In no case have we found any moving particles in the blood when the patient was living; that has been our great objection to calling what we found "bacteria." We found a large number of granules, which had very much the appearance of the refracting granules seen in degenerating blood-corpuscles; they had a tendency to aggregate into masses; sometimes there were large masses, which corresponded almost precisely to what has been called zoogloea, and in a large number of cases there were beaded chains. In no case during life did we find anything like a rod-like particle; they were only these rounded spheroids, as they have been called, or the compound spheroids, chains, or aggregated masses; we never saw them moving. These were so very much like the granules one sees in the blood, that we were hardly disposed to call them bacteria at all, more especially as on applying the caustic potash test they nearly always disappeared. These experiments appeared to us to coincide exactly with the observations made by Dr. Bastian, and which were laid before this Society in 1869. They only differ in this, that he at that time found rod-like particles in the blood, and so far, I suppose, these particles which Dr. Bastian found might have been called bacteria; I do not think in that particular communication to the Society he called them bacteria, but they were rod-like particles. We found nothing of the kind. I thought very likely that the difference between his results and ours might depend upon the fact that, while we examined the blood immediately it was removed from the body, he, as far as I understood, waited some five or six hours, which, I thought, was sufficient to develop bacteria. That is all I have to say with special reference to the blood. Dr. Sanderson threw out a suggestion that if bacteria were not present actually they were potentially; that is, I suppose, that under favourable circumstances bacteria would

develop more readily in pyæmic blood or the blood of fever patients than it would in patients where there was no such fever. To test that we removed some blood in various cases and kept it in capillary tubes for a certain length of time, and with greater readiness than in healthy blood the bacteria did appear, and were moving certainly. We also carried out a further branch of the same experiment in this respect, that pus and inflammatory products were also removed from serous membranes and from abscesses, and they also appeared to develop very rapidly into these rods, spheroids, and beaded chains; so that, as far as our experiments went in that direction, they perfectly confirm Dr. Sanderson's, that there was apparently some greater tendency to the formation of bacteria in these fluids than there was in healthy blood. The next series of experiments rather went to show, or were intended to ascertain, if there was any relation between the spreading conditions of erysipelas and bacteria. We removed blood from the spreading edges in cases of erysipelas, and in those cases we could come to no other conclusion than that there was not any bacteria—that is to say, in the juices we removed we could not find gangrene. We found in the blood of fever patients the same beaded chains, dumb-bells, and spheroids; but no rods, no moving particles. Lastly, we examined cases of closed abscesses, and also discharges from wounds, sores, stumps, and so on; and here one can coincide with Mr. Wagstaffe—in all the cases of discharge examined from stumps and sores, moving bacteria in chains and rods, and also spheroids and dumb-bells, were present in large quantities. In closed abscesses, also in pyæmic cases, we did certainly in some five or six cases find bacteria present. I think these are the principal observations we made during the past two years. There is one case I should like to narrate in relation to a case mentioned by Mr. Wagstaffe just now, in which he said pus removed from a knee-joint contained no bacteria. That case, again, is rather in opposition to what I had observed. It is, of course, very difficult to get pus from joints in cases of pyæmia during life—at least it has not fallen to my lot; but a case happened the other day which I will state, as it was exceedingly interesting to me. There was a case of scarlatina in Guy's Hospital; and, only separated by a partition, a current of air running along so as to run from one bed along the side of the other, there was an oldish man admitted for some nervous symptoms, which in a woman would be called hysteria. There was no wound on the patient at all, and otherwise he was perfectly well. He however became ill and feverish, with a temperature of 104°. A slight blush appeared upon one wrist, and one knee-joint rapidly filled with pus. He had evidently pyæmia. I examined his blood very carefully two or three times, but could not find any bacteria. I requested our house-physician—Mr. Paul, a most competent microscopist—to examine the fluid immediately the patient died. He did so; and there was a large number of still bacteria there, but no moving ones. That would quite coincide with what I observe in other cases—that there is a great rapidity in the formation of bacteria in the inflammatory products in serous membranes; but, as far as I have had opportunity of observing parenchamatous inflammations, they are not nearly so likely to form bacteria.

DR. PAYNE.—I have very few observations to present to the Society, but I should be glad to call attention to some of the facts of morbid anatomy which are observed both in relation to certain diseases which form the subject of this discussion, and also in relation to the presence of what are called bacteria in the body. But before doing so may I be allowed to dwell upon the importance which it appears to me there is in this discussion in attempting to draw a distinction, if there really be one, between bacteria such as are found in putrefying animal substances (or, as we may call them, putrefactive bacteria), and those which are found under various circumstances in disease. Dr. Murchison and others who have taken the side of opposition to the germ theory, have seemed to consider that question as of comparatively little importance, but it appears to me that we have to consider it both in relation to the appearance of these organisms and to the effects which they apparently produce. It is of course exceedingly difficult for anyone who is not in the habit of familiarly examining structures so small to be able to form an opinion as to their specific distinctness, and therefore we may to a certain extent invoke authority; and I may remind the Society that a very distinguished botanist, Professor Cohn of Breslau, who is, I believe, regarded as perhaps the greatest living authority on cryptogamic botany, and who, not being a pathologist, must be considered in such a matter as this to be impartial, distinctly admitted that the micrococci and other forms observed in various diseases are distinct from the forms which are observed in ordinary putrefaction; and whether these forms are, under particular circumstances, convertible into one another or not is not really of so much importance, because, as has been pointed out, these minute plants go through very often a series of transformations, but their appearance, and also the effects they produce, and the mode of life even in different parts of their life series, are very different; therefore, supposing that these were different forms and different series of development, they would still be as distinct in their effects as if they were original, untransmutable, distinct specific forms. Then let us suppose that the ordinary bacteria, such as are found in putrefactive substances, are sufficiently distinct to be recognised, it is then very interesting to inquire under what circumstances this particular form of organism is met with in the body, either during life or in death. It seems to me generally agreed that such organisms are very rarely and exceptionally found in the interior of the body (using that term in a very strict sense) during life. Dr. Bastian, in his introductory address, laid considerable weight upon the fact that bacteria are present in the healthy body in particular places, and, as he said, they are present through the whole of the alimentary canal; very often on the mucous membrane of the air-passages, and on the skin in various conditions and on open wounds. But with regard to the presence of such organisms in the alimentary canal, that, it appears to me, is a very different thing from their being present within the substance of the body; for this reason that man, like other animals, is a hollow animal, and the alimentary canal is in one sense still outside the body; and if we consider how frequently organisms of this kind must be present in the alimentary canal, and in such enormous numbers, especially as many animals, like ourselves, are in the habit of feeding on positively putrid substances, it is certainly clear that the mucous membrane of the intestinal canal must have some considerable power of resistance to the entrance of such organisms into the blood; otherwise they would be exceedingly more common than they are. Therefore, I think, after all, it is true that, meaning by the inside of the body the blood or the solid tissues, such organisms—that is to say, ordinary putrefactive bacteria—are not found in the body during life, unless exceptionally and rarely. Now, what is the case with respect to their being present after death? They are, as Dr. Bastian so justly pointed out, there present within a certain time, within a variable time—he said sometimes a few hours—sometimes not in any quantity till after several days. Now I will just recall to the memory of all those who have made a great many post-mortem examinations that there are some conditions in which these particular forms of bacteria are present in enormous numbers, and so shortly after death as to suggest at once that they must have been present even immediately before. There are those cases which are known as post-mortem emphysema, where the body sometimes, as I have seen it, even during a hard frost, when decomposition of the ordinary kind must have been quite arrested, swells up in a very few hours, less than six hours after death, to a considerable size, many parts of it being filled with small cavities containing gas; and this not only in the subcutaneous tissue, but more especially in the liver, spleen, and kidneys. Now, if we examine that part of the organ which is in this condition of post-mortem emphysema, we see at once that the gaseous cavities are merely developed out of pale softening spots, that the gas is produced in these pale softening spots, and that, if we examine the spots, they are really nothing in the world but tissue possessed of the commonest ordinary rod-like bacteria—the ordinary bacteria of putrefaction. There is no doubt, I suppose, that the same changes are taking place in such a body shortly after death as not unfrequently take place after a considerable time. Well, what conditions give rise to this post-mortem emphysema? I think in the great majority of cases—I am not prepared to say in all, but very nearly, if not quite in all—that I have seen there has been before death some part of the body in a state of positive death;

either there has been a gangrenous limb, or some considerable extent of bruised tissue, or, as in more than one case I have seen, there has been urinary infiltration, either from rupture of the urethra or as a consequence of some operation. Well, in such a matter of course positive proof is not to be had, but surely what is immediately suggested by such a relation of things is this—that this portion of the body, any gangrenous portion, any portion which has been severely bruised, is, we know, filled with common bacteria such as we find in putrefaction, and also when a part of the body, such as the scrotum or subcutaneous tissue, is infiltrated with urine from rupture, and is at the same time in communication with the air, we there find that the ordinary bacteria of this kind swarm; therefore it appears very reasonable to suppose that from that part of the body they have passed into the blood. Why, then, it may be said, did they not produce during life the same changes which they produce after death? Well, to explain that I simply accept the fact which has been insisted upon as against the germ theory—namely, that a particular kind of soil is necessary for the development of a particular species of bacterium, and possibly to some extent to determine the specific character. I suppose that these putrefactive bacteria in the healthy body cannot or do not germinate or live, and that, nevertheless, when a part of the body is in a gangrenous condition, they are liable, although not certain, to be circulated through the body and to lie waiting there till death causes the change in the tissue which permits of their more perfect germination, this germination and development causing the evolution of gas and producing the condition I have mentioned. Now, if this is at all true, it will be confirmed by an observation which Dr. Bastian also brought forward, that the bacteria of ordinary putrefactive fluid may be injected into the body without causing any very striking symptoms. For instance, Dr. Sanderson finds in the putrefactive fluids he has been able to separate the fever-producing substance from the bacteria, and finds that the bacteria are not fever-producing substances. Then we have to ask again whether the organisms—micrococci, or whatever we call them—when they exist in the body, do resemble in their history and in their associations these putrefactive bacteria. And here I do not refer so much to their presence during life, as to the appearances which are seen in connexion with them after death, because that is the occasion when I have chiefly observed them. I think it is certainly true, as was, I think, first pointed out in an emphatic manner by Heiberg, that although in many cases of pyæmia no organisms of a special kind are to be found in the blood, still they are to be found after death in those parts of the body which have been the subject of a pyæmic lesion; they are found apparently, where they can be easily traced, in the primary seat of injury or disease; and they are found also in the secondary seat of disease, being more particularly found in the tissues of cells, and also in the blood. What are these organisms which are thus found, if they are organisms? They are simply spheroidal granules, which show an extreme degree of resistance to alkalies and acids, and are therefore quite insoluble in potash, and are distinguished from the albuminous granules resulting from the breaking up of blood-cells, or from fatty granules. Now if these organisms, or whatever they are, if these small particles were the same as the substances in a dead body which are commonly associated with putrefaction, we should expect that, being present as they are in great numbers, they would produce putrefaction in the parts surrounding them; nevertheless I think that is distinctly not the case. When we examine a pyæmic case after death, we do not find that evolution of gas, and other signs of active putrefaction, in the place where the pyæmic lesions occur, although on examining we have found these organisms. Therefore I think this is a physiological proof of the truth that these, whatever they are called, are not the same as putrefactive bacteria, and physiological proof, if I may say so, in addition to the morphological difference adduced by several observers. Therefore, it does appear to me one can to a certain extent trace particular forms associated with particular disease in those parts of the body where the disease has occurred, and it is not the same as common putrefaction. Now, of course, it is easy to see this fact may be interpreted on other hypotheses. It may be said these forms are products of the disease in the parts of the body affected; it may be said by others that they are the cause of the morbid processes which have been going on in these particular parts, and there is no evidence on the face of it why one should be more true than the other. Whether there is any proof of that must come from other considerations which I do not enter into now. I would only just say, in conclusion, that the argument I draw from this is not one directly in favour of the germ theory of disease, but rather directed against some of the objections to it; and to some of these I think it applies with a great deal of force, because it shows that the negative results which have been obtained with respect to common bacteria such as those which occur in putrefaction cannot be applied immediately and certainly to the specific organisms which are alleged to be the cause of disease, and therefore many questions which have been argued and supposed to be solved with respect to putrefactive bacteria would have to be argued again, and on quite independent grounds, with respect to this.

Mr. JABEZ HOGG.—I do not intend to intervene between the Society and Dr. Bastian, and I am sure we are all willing that he should have as much time as possible for his reply; but there is one fact not mentioned by previous speakers that I should like to mention for the purpose of having Dr. Bastian's opinion upon it. It has always appeared to me that pus and the lymph-cells occupy a very important share in the production of those granules of which Mr. Wagstaffe has spoken. There is one experiment that I have often repeated, and it has been repeated for me by Mr. Bell, the eminent chemist of the Inland Revenue Department, in regard to the action of pus upon the fermentable materials. I have often added (as Mr. Bell has done for me) laudable pus to sweet wort, preparations of grain, and also sugar preparations, and we have obtained very active fermentation in the ordinary space of time. On all occasions the pus-cell has broken up, and produced the bodies represented in the drawing before us. Of course the result is similar to the action of yeast. There is a considerable quantity of alcohol, but only half the quantity that would be formed by yeast. We always get a certain quantity, from 7 to 9 per cent., and we have had 12 per cent. of alcohol from the action of the pus itself. I only mention this in order to hear from Dr. Bastian whether he has made these experiments, and what action he supposes the pus or lymph-cell of that kind would have upon those granular bodies, which I have myself observed repeatedly.

The reply of Dr. Bastian, which closed the discussion, we must hold over till next week.

MEDICAL SOCIETY OF LONDON.

AT the meeting on the 26th of April—Dr. Routh, President, in the chair—the proceedings were opened by Mr. WILLIAM ADAMS reading a paper on the "Treatment of Broken Nose by Forcible Straightening and Mechanical Retentive Apparatus." He commenced by dividing all cases of so-called broken nose into two classes—1. Those in which the injury is limited to the anterior or cartilaginous portion. 2. Those in which the nasal bones are fractured. The principle of treatment he adopted was, the patient being under chloroform, to straighten the bent cartilaginous septum with a pair of strong forceps, and when the nasal bones are depressed to raise these also by carrying the blades of the forceps directly upwards, lateral pressure being made externally at the same time. He then employed a retentive apparatus, consisting of a steel screw compressor, applied so as to support the septum, and worn for two or three days and nights without removal, ivory plugs being then used to support the septum and nostrils. In some cases, he remarked, when the nasal bones have been fractured, a retentive apparatus may be employed externally by means of a movable pad attached to a steel band passing round the head; but in recent cases it is seldom necessary to employ any apparatus, as the nasal bones and the cartilaginous septum, not being subject to any muscular influences tending to cause displacement, retain their improved position and relations. Four cases, illustrating this method of treatment, were related, and the retentive apparatus was exhi-

bited.—A short discussion took place, in which Mr. Gowlland, Mr. Mason, and Mr. Spencer Watson took part, the speakers (with the exception of Mr. Mason, who thought instrumental interference unnecessary in these cases) agreeing with Mr. Adams as to the efficacy of the plan he had pointed out.

Mr. HENRY SMITH then read a paper "On the Results afforded by 400 Cases of Hæmorrhoids and Prolapsus operated on by the Clamp and Cautery." He commenced by a short description of the operation, and went on to say that in a former paper read before the Society he had given the results of 300 cases, in which three deaths had occurred; in the last series, however, he had met with but one fatal case, caused doubtless by the too vigorous use of the cautery to arrest very severe bleeding, the patient dying in a few days with symptoms of peritonitis. The author had not met with one case of pyæmia after the operation, and only two instances of erysipelas. Hæmorrhage, either immediately after the operation or after the lapse of some days, he thought was about the only thing to be feared, and his experience led him to believe that if it did occur it was from the fault of the surgeon, who either used imperfect instruments or did not employ the cautery sufficiently. In three cases some contraction had taken place, but this was in consequence of his having removed skin too freely; this, however, may be successfully avoided by the use of bougies.—Mr. HEATH STRANGE exhibited a modification of Mr. Smith's clamp, adopted by Mr. Gowlland, which could be used with one hand, while with the other the buttocks were held apart.—Mr. GOWLLAND regarded the clamp as excellent in picked cases of internal hæmorrhoids. He believed that when stricture supervened it arose, not from contracted orifice, but from contractions of the ulcers of the bowel. He did not find recovery quicker after the clamp than after the ligature.—Mr. T. BRYANT used the galvanic cautery, which he preferred to the actual cautery.—Mr. ROYES BELL strongly advocated the use of the clamp and cautery.—Mr. CLOVER drew attention to an apparatus he had invented which was superior to the galvanic cautery.

Dr. SEDGWICK read (for Dr. Metcalf, of Geneva) the report of a cure of numerous and severe injuries from a fall.

A communication was read from Dr. RICHARDSON on the case of fibrinous obstruction on the right side of the heart referred to at the last meeting of the Society as being then under treatment by ammonia, in which it was stated that the patient may now be considered as convalescent.

A letter was then read, communicated by Mr. GAY, from the Rev. Thos. Powell, F.L.S., missionary at Samoa, in the South Pacific, extolling the virtues of a strong decoction of Rhizophera bark in venous ulcers.

The meeting then adjourned.

THE HOME TRANSPORT SERVICE.

DURING some long time the arrangements for the transport of our troops between the ports of the United Kingdom have been very unsatisfactory. Only three ships are available, the *Himalaya*, *Tamar*, and *Orontes*, for the entire Home and Mediterranean services, so that, as a necessary consequence, freight for troops has to be advertised for continually. The fittings, if any are ordered, have to be put up hastily, the troops, with their complement of women, children, and baggage, are huddled quickly in and out of the vessel, and the only excuse for this uncomfortable state of things is that the journey does not last long. It appeared, however, some time ago to the Transport Department of the Admiralty that the army was not being treated fairly in this matter. The practical result is the production of H.M.S. *Assistance*, which has been built exclusively for this particular service, and is now being fitted out in the East India Docks by Messrs. Green, the eminent shipbuilders of Blackwall. Her general form and upper deck arrangements are somewhat similar to those of the Anglo-Indian troopships, designed by Mr. E. J. Reed, C.B., the late chief constructor of the navy, but the internal fittings differ in many essential particulars. The *Assistance* is, in fact, built ostensibly to carry any kind or variety of army vital material, and she will transport without difficulty an entire regiment, with its proper complement of officers, women and children, horses, and equipment. The upper deck is devoted to saloon, army and navy officers' berths, stalls for eight horses, store rooms, latrines, bath rooms, and of course the quarters of the crew. The main deck, with which we are particularly concerned, will be appropriated exclusively to the troops. And here, unlike all other vessels, the hospital has been placed on the starboard side, at the stern. It is very roomy, lighted by seven ports, and ventilated by no less than five shafts, which can be made up-cast or down-cast at pleasure. Permanent closets and latrines are fixed on the port side aft, which, as also washing arrangements, will be reserved exclusively for women and children. The excreta and slops from these quarters are conveyed away into a common discharge-pipe through which water will flow in a constantly running stream, and will empty outwards abreast of the foremost closet. These closets, as indeed all others in the ship, are to be fitted with Baker's Patent Disinfecting Apparatus, which worked very successfully on the *Victor Emanuel* during her term of service on the Gold Coast in the late Ashantee war. The port side arrangements of this deck are continued by movable bulkheads, which will enclose quarters for the exclusive use of the women, but will be taken down when there are none on board. The starboard side and forward half of the port side are fitted up in the usual manner with cross tables and benches, and these are continued right up to the bows, so that on this deck forward there is literally nothing in the way of holes and corners to interfere with ventilation. Captain Brownlow, R.N., Chief Surveyor of Transports, who designed and is superintending all the fittings, has contrived a sort of surface drain along each side of this deck, fore and aft, which is intended to carry off the wet and sloppy material that invariably collects on a troop-deck, and is so difficult to get rid of quickly and effectively. In most transports when horses are carried, the urine eventually finds its way into the bilge, and frequently creates an intolerable nuisance. In order to remedy this very insanitary result, the liquid excreta of the horses will flow into tanks provided for the purpose below, and will then be pumped into the sea by a special hose service.

Special attention has, of course, been paid to the ventilating arrangements. The troop-deck is more than seven feet high; there are a large number of square ports which can be carried open in most varieties of weather. A mixed system appears to have been adopted, for the plan of Edmonds has been partially used. No less than five enormous diaphragmed ventilators open out on deck in the centre, and about twenty large cowled tubes on either side, all of which can be used either for supply or extractive purposes. The bilges and the skin of the ship are ventilated by means of numerous small syphoned tubes that open out on the spar deck close to the edge of the bulwark. This is a most important improvement, for as no communications between the linings of the vessel and the decks now exist, the officers and passengers will not, as in most other ships, be annoyed and half poisoned by bilge exhalations.

In recording these satisfactory particulars, it occurs to us that what may be called the nethermost parts of this carefully-designed ship are somewhat insufficiently ventilated, having regard to the fact that, as in habitations ashore, so in dwelling-places afloat, it is as necessary to arrange for the purity of the air below as for that around and above us.

The water service appears wellnigh perfect, if properly and intelligently administered. There are three distinct sets of pipes, severally for salt and fresh water, and for the fire mains, as to which latter very capital arrangements exist. The ship will carry drinking-water enough for nine days' consumption, over and above any that may be procured by condensing, and all that is used for drinking or cooking purposes will be passed through Crease's filters, a large number of which have been ordered. The water-tight bulkheads forward are very cleverly arranged, and there are many other interesting peculiarities in the *Assistance* a description of which does not come within the province of THE LANCET.

It is calculated that the *Assistance* will be able to clear off nearly all the coasting transport work of the United Kingdom, and, if this be the case, we may congratulate the service on a great prospective increase of comfort afloat.

THE LANCET.

LONDON: SATURDAY, MAY 8, 1875.

BY one thing and another we are reminded from time to time of the difficulty experienced by gentlemen in medical practice of obtaining degrees in Medicine. There are numbers of men in various parts of the country whose position in the profession and in society is such as to point them out as entirely worthy of a veritable British degree in Medicine, but whose curriculum of study was not framed with a view to satisfying the formal demands of the Universities in regard to men just completing their studies. To practitioners of established position, to whom we refer, the acquisition of a degree is a matter not only of reasonableness, but almost of necessity. The want of it really hinders, in some degree, the development of their professional position and success. And yet at present it must be admitted that our medical graduation system is inadequate to meet the case of such persons. We have no intention of advocating an indiscriminate manufacture of degrees; on the contrary, we advocate the maintenance of a high standard of demand on the part of the Universities granting degrees to practitioners. Only we argue that the kind of examination should be different from that to which a student fresh from school studies is properly subjected. We believe there is a considerable number of men in the profession, and in arduous practice, who would creditably exert themselves to pass a good examination suited to their case and age—not wanting, either, in tests of general culture,—and yet the only provision in Britain for meeting their case is in the power of the University of St. Andrews to confer a degree on not more than ten men above the age of forty. We think this provision inadequate to the fair demand, the more so as there is happily a growing feeling of determination not to use the title of Doctor on any questionable ground, or on the ground of degrees the possession of which should be preserved as a secret by all who have the misfortune to hold them. There should be such a provision in Britain as that respectable men are not driven to third-rate foreign Universities, to say nothing of that refuge of the destitute—especially of those destitute of self-respect—the Philadelphian University. The restrictions on the University of St. Andrews are not defensible. What virtue is there in the number ten?—or in the age of forty?—or, except to the University, in the fee of fifty guineas? We should limit the numbers, not by such artificial and costly restrictions, but by the excellence of the examinations. Our list of the successful candidates at the late examination showed that only nine passed. If we mistake not, two visitors from the Medical Council attended the examinations. We shall look forward with much interest to their report. They would do a great service to the best men in the profession by indicating clearly the real nature of this examination, as well as any points about it which might be so altered as to make it an adequate and fair examination for men whom the profession would be glad to see possessed of a degree. While we have no sympathy with those who wish for the title of Doctor only for its effect upon ignorant minds, we have every wish to see the title enjoyed by all who deserve it, and who would prize it as a test of general and of professional culture.

DR. J. M. DA COSTA, Professor of the Practice of Medicine in Jefferson's Medical College, Philadelphia, having been invited by the trustees of the Toner Lectures to deliver an address, selected for its subject that of Strain and Over-action of the Heart. The number of cases of heart disease, unconnected with any history of rheumatism, gout, or renal mischief, that are met with in practice, imparts an interest to the subject. Some researches into the frequency and causes of heart disease in the United States' army, conducted under the auspices of the Surgeon-General's office, formed the starting-point of several of the conclusions which the lecturer advances. Discarding the ordinary and well-known sources of cardiac disease, Dr. DA COSTA addresses himself to the consideration of a cause but little appreciated and to some scarcely known—the production of disease of the heart by strain and over-action. While there is a close connexion, at times nearly an identity, between the two, for the purpose of convenience the lecturer limits the idea of strain, unless the contrary is stated, to an acute strain—an injury by sudden, violent effort; and regards over-action, over-exertion, or over-work—for these terms may be employed almost synonymously—as a persistent excitement and derangement produced by less rapidly acting causes. Passing by those cases in which a rupture of the fatty or otherwise diseased muscular walls of the heart follows a strain, he adverts to those breaks and tears in the valvular apparatus and great vessels which clearly seem to be the result of a sudden disturbance. A person, for instance, is seized, after unusual exertion, with pain in the heart, and a distinct murmur is recognised, and followed sooner or later by the phenomena of valvular disease, varying of course as this or that valve has been the one damaged. The aortic and mitral valves suffer most frequently from injury of this kind; but the same thing may happen to the tricuspid. A segment of the mitral valve has been often observed torn from its attachment. The patient will sometimes speak very positively about his impression of something having given way in the chest, and he shortly after feels severe pain. These attacks of pain, paroxysmal in character, attended with palpitation, embarrassed breathing, and other manifestations of cardiac distress, are of course apt to recur and increase in severity. Most practitioners will be able to recall to their recollection occasional cases with a medical history of this kind; and two or three examples within our own experience may be taken as samples. The first is that of a previously healthy and robust man under forty years of age, who affected athletic exercises. One day, whilst undergoing violent exertion, he felt a sudden uneasiness in the chest, which caused him to desist. Shortly afterwards, whilst quietly smoking a pipe, he gave a violent sneeze, and became then and there sensible of a peculiar sensation and sound attending the action of his heart. The sound was sufficiently loud to be audible to his companions; and,

on subsequent examination, a loud humming murmur, generated apparently at the aortic opening, could be heard there and over the course of all the larger arteries. He passed from observation, but we ascertained that he died of symptoms connected with this cardiac mischief a few years afterwards. In the second case, a perfectly healthy but not very muscular man, some thirty years of age, formed part of a boat's crew on an occasion of considerable excitement. Stimulated by the exertions of others, he put forth every effort, and continued rowing until, in his words, he was "dead beat" and was removed from the boat in a fainting condition. He suffered much pain in the chest at the time, and expectorated a small quantity of blood. Shortly afterwards he was admitted into hospital, and ultimately died with the physical signs of extensive cardiac disease. A post-mortem examination revealed a small aneurism of the aorta, with an opening of communication between it and the pulmonary artery. The third case occurred in the person of an officer of fine physique, who was energetic and skilful in most athletic exercises. He traced the origin of a loud valvular murmur, followed by dilatation and hypertrophy of the heart, to his habits in this respect. Embolism of the main artery of one lower extremity formed a subsequent complication in this case, but, owing to the establishment of a free collateral circulation, he perfectly regained the use of his limb.

Dr. DA COSTA briefly adverts to a question that has been much debated, and happens to possess an annual interest with us—viz., the influence of rowing in producing heart disease. His experience amounts to this: that if there is any tendency to irritable heart or to any cardiac affection, it is aggravated by rowing; but that this exercise is otherwise beneficial, provided it be not too steadily followed.

We are persuaded that lesions of the coats of the large vessels in soldiers, which sooner or later lead to aneurism, are, in reality, due to an acute process of an inflammatory nature, and often unconnected with atheroma, and that this last condition is frequently itself the product of an allied but more chronic process of the same kind, as pointed out by Dr. MOXON and Dr. LAWSON.

In the class of cases just alluded to, the result was attributable to muscular strain or violent muscular exertion. But the same result, Dr. DA COSTA is certain, may happen from extraordinary mental emotion or shock; and he gives some striking instances in proof of the correctness of his conviction, one occurring in the troublous times of the late civil war. In some of these cases no structural imperfection likely to cause the break is discoverable; but in confirmation of the idea that there may be a slight alteration—under ordinary circumstances innocuous, but becoming serious under strain—Dr. DA COSTA refers to his having occasionally discovered in post-mortem examinations very slight fissures in the valves, just sufficient to have produced a rent under any strain, or severe and sudden abnormal working of the organ. Dr. DA COSTA next proceeds to the consideration of those cases of functional excitement of the heart from continued over-action and over-work. There is, first, the "irritable heart," so well known to military surgeons—a condition often engendered in recruits and young soldiers by the combined action of several factors present in a soldier's life. The same malady may, however, be encountered in civil life—among the causes of which the use, or rather abuse, of tobacco, alcohol, tea, &c., may be reckoned; but hard exercise—such as mountain climbing,—great mental emotion, malaria, or the occurrence of certain specific febrile diseases, typhoid and typhus, and occasionally yellow fever—in all of which there may ensue a granular degeneration of the muscular fibres,—may lead to the same result.

The lecturer conceives, and no doubt correctly, that the origin of these affections is connected with a perverted innervation; and he proceeds to expound the clinical facts by the light of the latest physiological researches into the opposing influences exerted by the pneumogastric and sympathetic nerves on the heart's action. From the perverted innervation, moreover, comes altered nutrition; and thus heart disease may grow out of heart disorder.

Speaking of the effects of occupation, Dr. DA COSTA refers to the influence of excessive expiratory efforts in producing affections of the heart or its great vessels; and he illustrates this by a table showing the prevalence of cardiac disorders among glass-blowers. He thinks that dancing, when excessively indulged in, frequently leads to great irritability of the heart, as indicated by the occurrence of functional disturbance of the organ among girls at the end of a winter season. It may be shortly stated that, as regards the effect on the circulation, all active, even violent, exercise is only injurious when too steadily persevered in; and that it is the intermitting which protects, and explains the reason why those exercises and pastimes are less productive of cardiac affection than the hurrying and impeding of the circulation, occasioned less palpably, but more constantly, by certain occupations.

MR. SIMON has a habit of designating common things by common names. This habit was never more happily illustrated than in his Supplementary Report to the Local Government Board just issued. The commonest of removable causes of diseases, and by reason of its very commonness the chief, is *filth*; and to filth as commonly understood and by its common name, and to the diseases which arise from it and to their prevention, Mr. SIMON devotes this Report. "It has been among the oldest and most universal of medical experiences," he writes, "that populations living amid filth, and within direct reach of its polluting influence, succumb to various diseases which under opposite conditions are comparatively or absolutely unknown; and the broad knowledge that filth makes disease is amply represented in the oldest records which exist of legislation meant for masses of mankind." If it be asked how the state of things described at length in the Report can possibly have remained after the numerous legislative and administrative efforts made for its removal, the answer is best obtained from a study of the circumstances which have frustrated them. These have had their origin, in the main, from one principal cause, and the progress of sanitary work in this country has been practicable only in proportion as this cause has been understood. The very commonness of the evil to be dealt with, and its obviousness, begot the

notion that common observation and common intelligence would alone suffice to cope with it. Filth as commonly understood, stink as commonly understood, and cleanliness as commonly understood—these were long the three cardinal principles of sanitary administration. How miserably they failed at all times to effect their purpose is part of the sanitary history of the country, to which Mr. SIMON now contributes the latest paragraph. The real work of sanitary science and its teaching during the past thirty years has been the gradual unlearning of the sufficiency of common apprehensions of filth and of cleanliness for thorough and efficient sanitary work, and of the necessity for basing such work upon medical knowledge of the modes in which filth produces and in which cleanliness removes unwholesomeness.

What constitutes an intelligent appreciation of the ways in which filth becomes destructive, as also "a clear intelligence of what cleanliness really means," it is the purport of this Report to show. Both subjects are treated with suggestiveness, and both will demand independent examination. For the present we limit our observations to certain considerations which arise out of the paragraph last quoted. The principle here referred to as requisite to proper protection from the mischievousness of filth, and which in a previous sentence is spoken of as "indispensable to sanitary administration in modern times," underlies the argument which has always been used for the employment of a medical officer of health as a necessary part of local sanitary administration; and the suggested educational influence of that officer as a teacher of the modes in which filth, or other injurious agencies, become hurtful, has at all times been regarded as one of his most important functions. Consistently with these views, after the passing of the Public Health Act of 1872, which made the appointment of a medical officer of health compulsory upon all sanitary authorities, the regulations of the Local Government Board provided that first of all he should "inform himself as far as practicable respecting all influences affecting or threatening to affect injuriously the public health within his district"; that "he should inquire into and ascertain by such means as are at his disposal the causes, origin, and distribution of diseases within the district, and ascertain to what extent the same may have depended on conditions capable of removal or mitigation"; that "he should keep himself informed of the conditions injurious to health existing therein"; and be "prepared to advise the sanitary authority on all matters affecting the health of the district." This was the interpretation, in the first instance, by the Local Government Board of the primary functions of the medical officer of health as intended by the Legislature—an interpretation based upon long-accumulating experience of sanitary administration and administrative requirements. But at the time when these regulations were issued, we now know from the reports of the general inspectors of the Board recently published, that the Local Government Board had determined to ignore its own regulations and to revert to the general conceptions of sanitary administration which existed thirty years ago—an administration based (to use a happy expression of one of the inspectors) "upon our common senses and our common sense." The inspectors were instructed, it would now appear, to consider common conceptions of filth, of stink, and of cleanliness, as represented by the inspector of nuisances, as the groundwork of sanitary administration, the medical officer of health being reserved for those special occasions where the inspector of nuisances confesses himself at fault, or where an irruption of disease demands strict medical knowledge. In other words, the inspectors were to intervene between the existing knowledge of sanitary science and requirements of sanitary administration and the new sanitary organisations, substituting for the guidance of the latter such conceptions as they might have of sanitary matters, matured (as Mr. STANSFELD has told us) by a two days' gossip with their fellow Poor-law inspectors and their President. Such is an example of the signification given by the Local Government Board to "common sense" in its application to sanitary organisation and administration.

Annotations.

"Ne quid nimis."

THE COLLEGES OF PHYSICIANS AND SURGEONS.

ALTHOUGH we have already published an abstract of the recent address of the President of the Royal College of Physicians, and made comments thereon, it is, we think, desirable to refer to it again, if, indeed, the occurrences of last week do not render it absolutely imperative. The chief interest of the address is centred in the passages relating to the action taken by the various licensing bodies co-operating for the formation of a Conjoint Examination Board. The history of the scheme is passed in review from its initiation up to the time when its progress was temporarily arrested by the Council of the College of Surgeons finding that the provisions of their charter would not allow them to carry into operation the proposals to which they had agreed with the College of Physicians. Mention is, however, made of the attempts by the Council of the College of Surgeons to obtain an Enabling Act of Parliament to "give them the power to carry out, if they may think fit," as Sir George Burrows puts it, "the scheme which they originated and prepared in conjunction with the universities and ourselves." This remark on the action of the College of Surgeons is significant, and throws considerable light on some subsequent events. It will be remembered that, six weeks ago, in commenting on the Conjoint Examination Scheme, we referred to a letter from the President of the College of Physicians that had been read at a meeting of the Council of the College of Surgeons. This letter related to the famous resolutions of January 14th, which, among other things, proposed that the College of Surgeons should have the power to elect ten out of forty examiners on the Conjoint Board, including therein not less than three-fourths of the examiners in surgery. We remarked that this letter was severe in tone, and expressed unqualified disapproval of the resolutions, which, we said, had been characterised "as a reversal of the proceedings of the co-operating authorities for the last three years," and, considering the importance of the question and the mover of the resolutions—Sir James Paget,—we did not hesitate to express our regret that the proposals were not deemed worthy of more than very summary judgment by the President of the College of Physicians. Our present duty is

not to make any comment on the resolutions, but to speak only of the letter. According to the statement of Sir George Burrows, which we reported last week, it would appear that the letter referred to was not a *public* but a *private* one, and that the version which we had published was imperfect. More than this. Indirectly it has been insinuated that we could not have known anything whatever concerning the letter except through some "breach of confidence" on the part of a member of the Council. These statements cannot, in justice to ourselves and others, be lightly passed by. We may say at once that had we known that the letter written by Sir George Burrows to the President of the College of Surgeons was regarded by him in the light of a private, not an *official*, communication, we should not have thought it necessary to refer to it in any way, even if under such circumstances it had been read at a meeting of the Council of the College of Surgeons. It was sufficient for the purposes of comment that the letter was founded on an interview between the presidents of the two Colleges, in the presence of their respective secretaries; that it was expressly written to serve as a record of that interview; that it was read at a full meeting of the Council of the College of Surgeons; and that it was ordered to be placed on the Minutes. We did not, consequently, for one moment doubt that the letter was written by Sir George Burrows in his *official* capacity as President of the Royal College of Physicians. But the question as concerns ourselves is now a simple one. We could not possibly be expected to have understood Sir George Burrows's intentions in writing it. His communication we regarded as an official one, for the reasons we have stated. It is clear, however, that, if it is to be considered a private letter, it should be at once erased from the Minutes of the Council of the College of Surgeons—indeed, it should have never found a place there; if not, Sir George Burrows can have no objection to express to the profession generally an opinion which he readily gave to one of its members, who happens for the time to be President of the College of Surgeons. The adoption of this course would certainly lead to a definite result, and would doubtless rectify all misunderstanding.

And now as to the vexed question of privilege. The proceedings of the Council are, in the abstract, supposed no doubt to be strictly private; but everyone knows that practically the medical press has, as a rule, little difficulty in ascertaining what has been done. It is now out of time and out of place, and quite opposed to the spirit of the age, to charge us with a breach of privilege, because we claim (as members of the profession and as fellows and members of the College) the right to know and comment freely, but fairly, on anything that has been done at a meeting of the Council of the College of Surgeons. Moreover, the more intelligent and enlightened members of the Council are desirous of publishing accurate reports of the meetings, and even of admitting reporters. But, altogether apart from the general question, we maintain that in the present instance we have a perfect right to know what has been done and what is being done by the various bodies to whom the profession, the Government, and the nation have entrusted the management of the Conjoint Examination Scheme. Seeing that this is a matter that has already been brought before the members of the House of Commons, and by that means before the notice of the country, and upon which Parliament may sooner or latter be called upon to offer an opinion, if not to give judgment, it seems almost ridiculous to expect that members of the profession, and the people generally, should be afraid to speak for fear of breach of privilege, while the representatives of two licensing bodies were disputing about the vested interests of their rival colleges.

THE BIRMINGHAM MEDICAL INSTITUTE.

IF there were at any time doubts as to the real state of feeling in the medical profession in the Midland district respecting the admission of professed homœopaths into the Birmingham Medical Institute, they should be effectually removed by perusal of a letter sent to Mr. Oliver Pemberton by Dr. Arlidge, Chairman of the North Staffordshire Sub-Branch of the British Medical Association, the representative body of the profession in the district. The following is a copy of the letter:—

April 23rd, 1875.

DEAR SIR,—At a meeting of the North Staffordshire Sub-Branch of the British Medical Association, held on the 18th inst. at Stoke-on-Trent, the efforts made by yourself in opposition to the admission of homœopaths to the Birmingham Medical Institute were discussed, and a resolution was proposed and carried expressing the Society's approval of the course adopted by you, and its regret that the opposition was unsuccessful.

(Signed) J. T. ARLIDGE, M.D.,
Chairman of the North Staffordshire Sub-Branch of the British Medical Association.

Oliver Pemberton, Esq., Birmingham.

We venture to affirm that if the question had originally been properly submitted to the consideration of the members of the profession in Birmingham and the neighbourhood, an overwhelming majority would have decided against the admission of homœopaths. As it is, large numbers of the medical men of the district have declined to become members of the institute if homœopaths are admitted. This course has unfortunately the serious drawback that it puts those members of the institute in favour of the admission of professed homœopaths in the majority.

THE SENSE OF TASTE.

THE precise physiology of the sense of taste is a subject to which a good deal of attention has been devoted, but there still remain some obscure points to be solved in connexion with it. It is well known that a great number of the sensations commonly included under the name of taste are in reality appreciated by the olfactory nerve. This is the case with nearly if not quite all of the aromatic and odorous flavours, as is clearly seen in cases of anosmia; whilst sour, salt, and astringent tastes are due to impressions on the nerves of common sensation, and are probably the results of chemical action. But the appreciation of "sweet" and "bitter" tastes is a special function, located in certain limited areas of the tongue, which are provided with special forms of papillæ, and to a small portion of the palate and fauces. Of these, the anterior portion of the tongue, close to the tip, and the posterior third of the dorsum are the most important, both possessing the power of discriminating sweet and bitter; but the anterior portion being apparently more sensitive to sweet, the posterior to bitter, tastes. The latter area is supplied by the glosso-pharyngeal nerve, which appears to act as the taste nerve; but with regard to the former, which is supplied by the lingual branch of the fifth, some doubt exists. Dr. A. Davidson, of Liverpool, has recently drawn attention to the subject in a paper "On the Sense of Taste, and its Relation to Facial Paralysis and Anæsthesia," in which he discusses the various views which have been advanced, and relates three cases bearing upon the question. The results of clinical observation and of physiological experiment appear to show conclusively that the sense of taste in the anterior area is dependent on the integrity of the chorda tympani, since injury to the fifth nerve, above the junction of the latter with it, although accompanied by complete anæsthesia of the side of the face and tongue, does not necessarily affect the sense of taste; whilst, on the other hand, when

the chorda tympani is injured or cut taste is lost without loss of sensation. According to some, who regard the chorda tympani as a purely motor nerve, this is due to the affection of the functions of the submaxillary gland, or to the loss of power of erection of the taste papillæ. Neither of these explanations, however, appears to be satisfactory, and the weight of evidence would seem to be in favour of the view that some of the fibres of the nerve are afferent. In one of Dr. Davidson's cases there was complete paralysis of the portio dura on the left side, of deep origin, accompanied by entire loss of taste in the corresponding half of the tongue in the anterior part. In another case there was right facial paralysis from disease of the internal ear, and loss of taste on the right side of the tongue. In the third case, there was complete anæsthesia of the parts supplied by the fifth nerve on the right side, probably resulting from a fracture of the skull; but although there was complete loss of sensation on that side of the tongue, the sense of taste was for some time unaffected. Its subsequent impairment is ascribed by Dr. Davidson to the changes in the mucous membrane of the tongue consequent upon impaired innervation. This case may serve to explain some anomalous cases in which injury to the fifth was associated with impairment of taste. Dr. Davidson believes that the taste nerves pass by the chorda tympani to the facial, and thence probably by the nerve of Wrisberg to the brain.

THE ARMY MEDICAL SERVICE.

THERE is no sign of abatement in the expressions of dissatisfaction at the present state of things in the Army Medical Service, or in the interest manifested as to the character and scope of the proposed remedies. We continue to receive numerous communications on the subject. The opinions as to what should be done are, however, diverse; and the number of pamphlets, which Mr. Gathorne Hardy spoke of having received, have probably proved a source of more embarrassment than assistance to him. He ought by this time, however, to have become acquainted with every phase of the question. As far as we can understand, all medical officers are in accord in abusing a system which is neither one thing nor another. As was recently pointed out in our contemporary the *Globe*, medical officers are now, to all intents and purposes, staff or departmental, and not regimental officers, notwithstanding that they may be temporarily attached to a regiment for duty. Under such circumstances it was not to be expected that they would be content to pay the same contributions and subscriptions to regimental messes as if they were *bonâ fide* officers of the corps to which they were attached. A correspondent in our contemporary pointed out that medical officers are not desirous of accepting anything from regiments without paying the full value for it, but he contends that they enjoy no other privileges than would be extended to honorary members of a mess; and the medical officers feel that they are placed in a false and unfair position by this ruling of the Horse Guards. They are taxed every bit as much as any regimental officer of equivalent rank who fully participates in the advantages and hospitality of the mess, which they allege they do not. The proper and preferable course would surely have been, under the altered conditions in which medical officers are now placed, to have made these "attached" officers either honorary members paying a higher rate for messing, or the ordinary subscriptions in addition to the actual cost of messing, without the contribution of fifty days' pay on joining. We are glad to perceive that Mr. Gibson was to ask the Secretary of State for War whether it is the fact that officers of the Army Medical Service, when first attached to a regiment, although not permitted to wear its uniform or to describe themselves as belonging to it, are compelled to pay fifty days' pay as a contribution to its mess and band funds, and whether it is his intention to remedy such an unfair state of things, if they exist. It is also much to be regretted, we think, that the allowances to which medical officers are entitled are not stated in a plain and unmistakable way; for it seems to be a common source of complaint with them that their so-called relative rank affords them no guarantee or protection in this respect. Now that they have all become acquainted with the terms of the Naval Medical Warrant they naturally expect that Mr. Hardy will adopt a similar course in regard to their service. His declarations and reference to that Warrant have done much to stimulate their hopes, and they are anxiously awaiting the War Minister's decision in regard to them.

SIR THOMAS WATSON ON VIVISECTION.

THE current number of the *Contemporary Review* contains a short article by Sir Thomas Watson, written in that temperate and judicial tone which might have been expected from his pen. Sir Thomas Watson does not discuss the whole question, but contents himself with endeavouring to calm the disquietude that has arisen, by showing that vivisection may be both lawfully and mercifully practised within certain limits and under certain conditions. To justify such experiments, however, there must be some definite object in view that shall hold out some reasonable hope and prospect of resulting benefit. Sir Thomas considers that no one is justified in making any painful experiment upon a living creature who does not possess the skill, judgment, intelligence, and previous knowledge requisite to render the experiment successful and instructive; that experiments are not to be repeated, however mercifully conducted, nor is an animal to be even deprived of life, for the purpose of illustrating that which is already established, or merely to appease the natural curiosity of students; and that it is only in order to settle once for all a disputed point of importance that a single repetition of experiments might reasonably be allowed. The remainder of the paper in question is taken up with a popular elucidation and explanation of certain nervous phenomena in animals by the light of well-known physiological laws.

THE HAMPSTEAD HOSPITAL.

A MEETING of the Committee of the whole of the Metropolitan Asylums Board was held on the 30th ult., to report on the site for an infectious diseases hospital at Mill Hill, offered to the Board by Mr. J. Harvey, in place of the site now occupied by the Board at Hampstead. The Committee, by a majority of 35 to 5, agreed to a report of which the following are the chief conclusions:—The distance of the proposed site from the great mass of the population for which the hospital was to be provided was objectionable. The objections urged against the Hampstead site would equally be urged by persons holding property adjacent to the Mill Hill site, and in view of these objections, although "probably equally void of solid foundation, when dispassionately considered, the Committee failed to see what justification the managers could give for removing from the one site to the other." Further, Dr. Frankland had expressed an opinion that the contiguity of an infectious diseases hospital to a water company's reservoir, as would be the case at Mill Hill, might give rise to much alarm among the consumers. The Committee therefore recommend the Board "to decline Mr. Harvey's offer, and, with the object of putting an end to further agitation, they also recommend the Board henceforth to decline the consideration of any fresh sites, should such at any time be offered to them

that, with a view of quieting the fears of some of the inhabitants of Hampstead, the Committee advise that it be fully explained it is at present intended that the Hampstead Hospital shall only be used for the reception of infectious cases in the event of such an epidemic arising as would render the hospitals of the managers at Homerton and Stockwell unequal to provide for the patients sent thereto; and that if, in the meantime, the Hampstead residents will point out what extra precautions they think might reasonably be taken for the protection of the neighbourhood, the managers will readily give their views a careful consideration."

The next meeting of the Board, at which the Committee's report will be considered, is announced for the 8th inst. Meanwhile the Committee of Hampstead Residents has obtained a report from Dr. Letheby traversing Dr. Frankland's objection to the site at Mill Hill, with respect to any danger of infecting the Grand Junction Water Company's reservoir there.

ON THE PHYSIOLOGY OF THE PERSPIRATION.

NEARLY one-half of the last part of the *Zeitschrift für Biologie* (Band xi., Heft i., 1875, pp. 1—78) is occupied with an elaborate paper by Dr. Friedrich Erismann on Cutaneous Transpiration. As is usual in German memoirs of this kind, there is a very complete historical account of the subject, in which the observations of Krause, Séguin, Valentin, Reinhard, Weyrich, Pettenkofer, and many others, are given. Erismann set himself to determine the amount of evaporation that took place from the surface of dead skin the inner surface of which was in contact with water, with observations on the evaporation from the whole body and from particular parts of it; and, secondly, to study the variations of cutaneous transpiration from the living body under the most varied external and internal conditions, the latter branch of the subject of course including the effect of clothing. For the description of the apparatus used we must refer to the original. It appears to have been well adapted to the purpose intended. M. Erismann satisfied himself, in the first instance, that with dead skin it was of no consequence, in regard to the amount of evaporation, whether the internal surface was in contact with water or with serum. A distinct relation was demonstrated between the amount of evaporation and the temperature of the air. Yet it appeared that at low temperatures the rise of a few degrees was of small importance, whilst at higher temperatures they made a considerable difference. The activity of the process of transpiration seemed to be connected with the number of sweat-glands, since it was much more active in the case of the sole of the foot than in that of skin taken from the chest or belly, notwithstanding the much greater tenuity of the epidermis in the latter case. No increase took place when the pressure on the inner surface was great; as, for example, when one arm of a subject was fully injected whilst the other was in the natural state. Ventilation or movement of *moist* air had no influence on the amount of evaporation. Removal of the epithelium caused scarcely any appreciable difference. Under ordinary temperature and moisture of the air, Erismann found that the body of a young woman who died in childbed lost 617·6 gr. in twenty-four hours. In regard to the *living body*, he found that the relative dryness of the surrounding air was the most important factor in modifying the amount of evaporation from the surface. Thus, other conditions being tolerably equal, the evaporation of water from the skin was about 45 gr. when the moisture in the air was 77 per cent. of saturation, whilst it was 899 gr. when the amount of moisture was only 15 per cent. The amount also increases with augmented temperature and with a current of air. The effect of clothes seems to be but slight, and, if anything, rather favours than restrains evaporation. The consumption of large quantities of hot fluids favours evaporation; and so of course does work. There can be no doubt that the sweat-glands are the main agents in effecting cutaneous transpiration, and much more fluid is lost by the living than by the dead body.

A NEW CYCLOPÆDIA OF THE PRACTICE OF MEDICINE.

WE desire to call the attention of our readers to a very large and important work that has been undertaken by Messrs. Sampson Low and Co., and which is no less than the translation of the Cyclopædia of Practical Medicine now publishing by Prof. Ziemssen. This Cyclopædia embraces the entire range of special pathology and therapeutics. Seven volumes have already been issued in the German language, and it is expected that it will be completed in eight more. The translations will be partly done in America and partly in England, and one volume is to be published every three months, so that the entire work will be completed in the course of three years. The first three volumes of the translation are already out, and include the consideration of the Acute and Chronic Infectious Diseases. Vol. I. contains Typhus, by Liebermeister; Cholera, by Lebert; the Plague, by Liebermeister; Yellow Fever, by Dr. Hœnisch; Dysentery, by Prof. Heubuer; and Diphtheria, by Dr. Oertel. Vol. II. contains Varicella, Measles, and Scarlatina, by Dr. Thomas; Variola and Varioloid, by Dr. Curschmann; Erysipelas and Miliary Fever, by Dr. Zuelzer; Malarial Infection, by Prof. Hertz; Epidemic Cerebro-Spinal Meningitis, by Prof. v. Ziemssen. Vol. III. contains Syphilis, by Prof. Bäumler; Trichinosis, Echinococcus, and Cysticercus, by Prof. Heller; Infections by Animal Poisons, Rabies, Glanders, Worms, Malignant Pustule, Snake-bite, &c., by Prof. Bollinger.

The edition before us is uncommonly well got up, the printing being excellent, and the translations as a rule very fairly done. The whole work constitutes a very valuable reflex of the state of medicine in Germany at the present time, and contains a large amount of information not readily accessible to the English reader. We wish it every success, and predict that it will meet with as warm a reception on this side of the Atlantic as it appears to have had in America. Those who are desirous of making further inquiries as to the scope of the work, or of becoming subscribers, may address to Dr. John W. Palmer, 23, Dorset-street, Portman-square, London, W., who will supply prospectuses, &c. We shall have occasion to notice the several volumes as they appear.

THE TENBY WATER-SUPPLY.

CONSIDERABLE discussion is going on at Tenby in reference to the water-supply. It appears that two years ago the Town Council employed Mr. Burns, an engineer, to report upon the best means of procuring a good water-supply, and to prepare plans for the construction of new waterworks. Suitable springs, about two miles from the town, furnishing an adequate supply of excellent water, were determined upon; and Mr. Burns recommended that the water obtained from these should be stored in a covered reservoir. To this proposition the Town Council declined their assent, and called in another engineer, who gave his opinion that "no object was to be gained in covering-in reservoirs." This is so distinctly contradictory to the opinion expressed by Dr. Frankland that we should like to ask the engineer in question to give the reasons on which he bases his statement. In our report on Folkestone we

entered fully upon this question. There it was found that the water collected in the open reservoir contracted considerable organic impurity; and although the water from the springs was of excellent quality, the water distributed to the town was not so pure as it ought to be, or might be made if the reservoirs were covered in. It is a well-known fact that hard spring waters, when stored in open reservoirs, rapidly become contaminated with organic impurities; whilst soft waters, though containing a considerable amount of organic matter, do unquestionably improve in purity. In the case of Tenby, however, the water, as we gather, is hard and almost entirely free from organic impurities, and is therefore certain to deteriorate if stored in an open reservoir. The local authorities seem to have been fortunate enough to have secured a good water-supply; we hope, therefore, that they will not allow it to deteriorate in their hands. The expense of covering in the reservoir would be small; and we should be glad to record that the local authorities had done all in their power, not only to secure a good water-supply for the visitors, but to protect it from all possible chances of contagion.

THE METROPOLITAN HOSPITAL SUNDAY.

ALMOST before our impression will appear, a meeting of clergymen and laymen, the veritable representatives, not of this clique or the other, but of the churches which provide the Hospital Sunday fund, will have met, and expressed their opinions on the more difficult matters to be considered in distributing the fund. We sincerely trust that a disposition to harmonise and conciliate will prevail. If there has been any error so far on the part of the Council, or rather of the Distribution Committee, it has been in a disposition to be too judicial in its functions—to sit in judgment on the merits and demerits of different modes of charity or different kinds of institutions. We do not say that the time may not come for such action on the part of the Distribution Committee; but the time is not yet. What all friends of the Hospital Sunday Fund must see to be necessary is to establish the fund as an institution, and to conciliate all parties and all localities in the metropolis. When this is done, and when the Distribution Committee has acquired the experience of years, its criticisms will be greatly respected. Meantime generosity and charity are to be preferred to criticism. We hope that the meeting to-day (Friday) will use its great influence in support of these views. The Hospital Sunday Fund is a greater matter than any particular doctrine of distribution.

SUDDEN DEATH AFTER PARACENTESIS THORACIS.

AN instructive case exemplifying a possible danger from the operation of paracentesis thoracis has been recorded by Dr. Ernest Legendre in a recent number of the *Gazette des Hôpitaux*. The patient was a farmer who, when first seen, presented signs of considerable effusion into the left pleura, following acute pleurisy fifteen days before. After a week had been spent in attempting to promote absorption by means of blisters, diuretics, &c., paracentesis was performed by means of Dieulafoy's aspirator, and three litres of pink turbid fluid withdrawn. The operation lasted half an hour, was accompanied by slight cough, but was followed by marked relief. Resonance returned over the chest. In a very short time dyspnœa recurred; there was copious outpouring of secretion into the air-passages and cyanosis, death occurring from asphyxia within the space of five minutes. Dr. Legendre thought the fatal issue to be due to rapid bronchial secretion, and to the inability of the lung to expand fully from its being compressed or bound down by firm false membrane. Another explanation proffered was that it was an example of excessive "albuminous expectoration" to which attention has been recently directed. Dr. Legendre adds that "for two years I have performed twenty paracenteses by means of the aspirator for serous or purulent effusions without the least accident, and, fully confident of the operation, I had declared that immediate relief and speedy cure would follow its performance. In spite of the reddish tint and turbidity of the fluid, which was present from the first aspiration contrary to my expectation, I did not expect so rapid a death. It is this unlooked-for event that has determined me to publish this observation, deeming it to be of use to my young *confrères*, and to prevent them from compromising their reputation by affirming, as I did in this case, that marked relief and certain cure would follow. It will be always prudent to make reservations."

THE PROPOSED SOUTH-WESTERN HOSPITAL FOR CHILDREN.

THE authorities of the Victoria and Belgrave Hospitals may now be congratulated upon the progress they have made towards the amalgamation of those charities. It has been decided not to erect the proposed hospital on the present site of the Victoria Hospital; and though this decision will probably surprise some, its wisdom is amply demonstrated by the considerations which we noticed in our last issue. The Duke of Westminster, who has most liberally and earnestly striven to forward this amalgamation, has, within the last week, offered, for the erection of the South-Western Hospital, a fresh site upon land now occupied by the Thames Bank Distillery, in the Grosvenor-road, east of Effingham-street.

This makes the third site which the Duke and Lord Grosvenor have offered to give for the united hospital, and ought to forbid the possibility of the amalgamation falling through. The Distillery site is situated about a quarter of a mile from the Battersea-bridge site, which we advocated last week; both are unusually airy, and recommended by economical reasons.

Attention should be directed to the condition of the river and of certain docks or creeks in the neighbourhood. The importance of securing their absolute cleanliness and high sanitary order, in view of the settlement of the question of site, must be evident to the joint committee.

DETENTION OF MEDICAL WITNESSES IN LAW COURTS.

IT would be but a graceful extension of the privileges of exemption enjoyed by medical men if the law would still further protect them from unnecessary detention as witnesses in courts. Such detention is not only often a grievous inconvenience and loss to them, but it is also a most serious hardship to patients who may be in circumstances of critical or extreme illness. This evil has been well exposed in a letter to the *Norfolk Chronicle*, by Mr. Frederick Manby, of East Rudham, and by the editor of the paper. Mr. Manby was detained from the beginning of the Norwich Assizes to nearly the end, as a witness in a criminal case which came on on the fifth day, Sunday intervening. For this, and for two journeys to Norwich, and, before the committal, two journeys to Lynn and two days' attendance there, Mr. Manby received £8 17*s.*! Considering the facilities offered by railways and telegrams, it is certain that this heavy demand on a medical man's time could be greatly lessened. Either the cases in which medical men are concerned might be tried at a given part of the assize, or the medical man might, after being duly subpœnaed, be telegraphed for.

Such arrangements would be more worthy of this date than one that takes a medical man away from his patients and his home for seven days, to say nothing of the argument that it would keep down the county expenses.

ALLIANCE OF PRACTITIONERS WITH DRUGGISTS.

WE cannot too strongly condemn all alliances by which practitioners co-operate with druggists. Perfect and respectful independence is the attitude which the druggist and the doctor should respectively hold to each other. But of all such objectionable relations, one of the worst is illustrated by what was said at an inquest in Manchester the other day on the body of a child aged six weeks, and which had been treated only by a druggist. The child was taken to the druggist for a "swelling in the region of the bladder," for which it got a lotion and medicine. "The deceased went on getting worse." One morning its mother found it in a fit, and went for a doctor. When she returned the child was dead. This is another instance of the unsatisfactory way in which some druggists tamper with serious cases. But there was a still more discreditable feature of this case. The druggist, on being examined, gave the following account of his relations with a surgeon:—

"He could not recollect the particular case, because there were very many children brought to him. Witness would have given a lotion of gillard with opium for a swelling such as described. Witness did give certificates. A surgeon named Mr. —— filled them up, but did not always see the cases which witness certified. They were filled up entirely by Mr. ——. Witness gave him the particulars and then he gave the certificate as if he had seen the case. Witness had been assistant to him for seventeen years."

No wonder that the jury expressed a strong opinion about surgeons giving certificates of death without seeing the patients. Such conduct seems to us to call for attention from the Medical Council.

THE WORCESTER INFIRMARY.

THE case of Dr. Inglis against the Rev. Martin Amphlett seems to us so clearly in favour of Dr. Inglis, and is so ably stated in a leader of the *Worcestershire Chronicle*, that we need not much further discuss the matter. It is, of course, desirable that honorary officers should keep their infirmary engagements but they labour under the disabilities of other men: it is impossible for them to be in two places at one time. And even Mr. Amphlett would allow that an honorary officer accepts the office on the condition that he is to be allowed to do his duties as a private practitioner. Dr. Inglis is right, too, in declining to have his conduct judged by the House Committee, whose function is altogether different from that of sitting in judgment on such questions. He was quite willing to give explanations to the Executive Committee. Dr. Inglis only puts the matter rightly when he represents the medical staff of an infirmary as finding the skill and the subscribers as finding the money for conducting an infirmary, and founding on this an argument for a mutually respectful treatment.

THE URINALS AT WATERLOO-BRIDGE.

WE would draw attention to the disgraceful condition of the two urinals, situated one on each side of the road, at the Middlesex approach of Waterloo-bridge. They consist of two shallow iron vessels, which are perfectly encrusted with old deposits of phosphates and ammoniacal salts. As there is no water supplied to keep these pans constantly flushed, they rapidly dry, and then the stench from the decomposing urine becomes most abominable, and is readily perceptible to the passers-by. Moreover, these places are fully exposed to public view, and, independently of the indecency of such an arrangement, the eye, as well as the nose, is offended by viewing this foul corner, stained and reeking with half-dry, decomposing streams of urine. The authorities ought at once to screen this place off from the public gaze, and substitute for the iron pans proper glazed porcelain urinals, kept constantly flushed with water.

THE MEDICAL SOCIETY.

THE Annual Oration of the Medical Society was delivered on Monday last by Dr. George Buchanan, who chose for his subject "Some Points of Importance relative to Modern Hospitals." The oration was carefully studied, full of valuable facts and practical suggestions, and closed with a very graceful tribute to that large-hearted philanthropist and physician, Dr. Anstie, whose loss we have so recently had to mourn. Dr. Buchanan's valuable contribution to the literature of preventive medicine will be printed, in accordance with the unanimous wish of the meeting. The evening terminated with a pleasant *conversazione*, at which objects of interest were exhibited by fellows and friends of the Society.

VIVISECTION.

SOME eminent naturalists and physiologists, including Mr. Darwin, Professor Huxley, Dr. Sharpey, and others, have been in communication with members of both Houses of Parliament to arrange the terms of a Bill which would prevent any unnecessary cruelty or abuse in experiments made on living animals for the purposes of scientific discovery. It is understood that these negotiations have been successful, and that the Bill is likely to be taken in charge by Lord Cardwell in the House of Lords, and by Dr. Lyon Playfair in the House of Commons.

PROMOTION IN THE NAVAL MEDICAL SERVICE.

THE following are some of the changes and promotions in the Naval Medical Service:—Three inspectors-general retired, and three officers of that rank promoted; and two deputy inspectors-general promoted. We believe, moreover, that there are now several vacancies on the fleet surgeons' list, which will be shortly filled up. This indicates the beneficial operation of the new Naval Medical Warrant, of which these promotions are the result.

IT may not be generally known that the late Mr. Winwood Reade, a journalist of some note, and who represented *The Times* in the Ashantee expedition, was brought up to the medical profession. He was for some considerable time a student at St. Mary's Hospital, but a love of adventure and travels led him into the interior of West Africa, on emerging from which he wrote a very readable book descriptive of the country. His subsequent march with our troops to Coomassie seems to have broken him down. He died a week or so ago at quite an early age. His "Martyrdom of Man" is a book of great literary merit, but calculated to shock the orthodox.

IT is reported that the Black Sea quarantine station is to be removed from Cavak to Bourgas, and that a lazarette will shortly be erected at the latter place. However convenient for commercial purposes the change may be, it is, on sanitary grounds, by no means recommendable. Bourgas is (or was up to a recent date) one of the most eminently dirty towns among the many unclean ports that fringe the northern borders of the Black Sea, and its surroundings are equally unsavoury and insanitary.

A REMARKABLY high death-rate among the inmates of the Newcastle Workhouse during the last quarter of 1874, as set forth in the report of the Visiting Committee, has excited some attention in the town, and was last week made the subject of discussion by the Newcastle Board of Guardians. Mr. Hardcastle, the medical officer of the workhouse, attributed the unusual mortality to the fact of a large number of aged and diseased persons being sent into the house apparently in a dying state. That it was time this matter should be looked into a little may be surmised from a statement in the report that during the quarter forty-one persons were sent into the workhouse hopelessly ill, and of these fifteen died within a few hours of their admission. The Visiting Committee accordingly recommended that in future, whenever practicable, aged and diseased persons should be allowed to remain in their own homes, and that the medical officers of the various districts and the relieving officers be requested to use every exertion to avoid sending such cases to the workhouse.

THE attention of Parliament has been called to the systematic evasion of the Vaccination Acts by the Keighley Board of Guardians. We had reason some time ago to comment on the ignorance and obstinacy of the Board in this matter. They persistently refused to instruct their officers to enforce the provisions of the Act, and the result of this remissness is seen in the fact that last quarter thirty-seven deaths from small-pox were registered in the place. In the neighbouring village of Skipton there are now over one hundred unvaccinated children, many of whom will doubtless fall victims to an outbreak of small-pox which now prevails. The example set by the guardians must have a deplorable effect on the poorer classes in the district, whom they represent so badly. We are glad to learn that legal measures are about to be taken by the Local Government Board which we hope will bring the guardians to their senses.

THERE is much reason to fear that the use of chloral hydrate is becoming indiscriminate and mischievous. Medical men everywhere would do well to strongly discountenance its consumption except under professional advice. Even in the most experienced hands it has proved fatal, and it may be remembered that twenty grains once given by a well-known physician—now dead—as a hypnotic produced a sleep from which there was no awakening. An inquest was held at Redhill last week on the body of a lady, when the verdict of "Died from an overdose of chloral" was given. She appears to have taken the drug regularly for a long time, receiving supplies from a local chemist. Mr. F. B. Hallowes, who made a post-mortem examination of the body, concluded that she must have died from an overdose, although there was unmistakable evidence of diseased heart and lungs.

THE proceeds of the bazaar held in the Free Trade Hall, Manchester, for the benefit of the funds of the Children's Hospital of that town, have, it is stated, reached the magnificent sum of £21,500—over three-fourths of the total amount realised by the Hospital Sunday collections in London last year! The expenses incidental to the bazaar will, it is understood, be almost entirely met by private subscription.

AN outbreak of scarlet fever is reported from Ribchester, near Longridge. Up to the present date, twenty-seven cases had occurred, several of which proved fatal. The sanitary authorities of the district have had their attention directed to the epidemic, and are now concerting means for arresting its progress.

IN London 1532 deaths were registered last week, including 11 from measles, 35 from scarlet fever, 7 from diphtheria, 96 from whooping-cough, 30 from different forms of fever, 15 from diarrhœa, and 375 referred to diseases of the respiratory organs. It is cheering to find that no death from small-pox was recorded in the period. Two fatal cases of enteric fever and one of typhus occurred in the Asylum District Fever Hospital at Homerton. Forty-four deaths were attributed to different forms of violence.

THE question of infanticide is again occupying the attention of the French legislature. A special committee, appointed to inquire into the causes of the excessive mortality of children in France, have reported that in the whole country one-fifth of the children born die before reaching their second year, and that of 54,000 children born annually in Paris, more than one-half do not reach their fourth year.

MR. WADDY, we are informed, has been prevented, by absence from town, from putting the important question concerning conjoint boards and half-qualifications of which he has given notice in the House of Commons.

MR. ERASMUS WILSON has given a sum of 100 guineas to the British Medical Benevolent Fund for the augmentation of annuities for aged or disabled members of the profession.

Inspector-General H. J. Domville, C.B., and Deputy Inspector-General James Jenkins, C.B., have both joined Plymouth Hospital from Jamaica and Bermuda respectively.

THE DISCUSSION AT THE OBSTETRICAL SOCIETY ON PUERPERAL FEVER.

THIS discussion was resumed on Wednesday last (the 5th inst.), Dr. Priestley, the President of the Society, occupying the chair. We give this week an outline of the debate, of which a full report will appear in our next issue. There was by no means the same agreement among the speakers as to the non-specificity of puerperal fever that prevailed at the last meeting; indeed, the majority held the opposite view. From the great and widespread interest of the question, and the fact that all practitioners, more or less, must have met with examples of the affection, it is believed that the debate will extend over at least two more meetings. Should it be still in progress at the July meeting, Mr. Wells stated that Dr. Fordyce Barker, of New York, would be enabled to be present. Before the debate was resumed a long letter was read from Dr. Matthews Duncan, in which the writer expanded the views laid down in his previous communication; pointing out the hardship endured by the recent prosecutions of midwives for manslaughter; and stating that if "homicide by infection" be indeed recognised in law, no medical man was safe from prosecution. Dr. Duncan also combated the statement that recently appeared in *The Times* to the effect that practitioners who had cases of puerperal fever abstained from midwifery practice for two or three months; a course which he has never adopted as a precautionary measure in the whole of his thirty years' practice. As this letter will be published in full, we need not dwell further on it here, save to remark that the reading of it was met with decided marks of approbation by the meeting.

Dr. BARNES, after commenting on the advantage of such a question being raised in bringing together opinions from those not engaged in obstetric practice, and expressing his entire approval of the opinions contained in Dr. Duncan's letter, said that puerperal fever (which he defined as "fever in a lying-in woman") may be divided into two great classes:—(1) Heterogenetic, having its source in a zymotic poison, and (2) auto-

genetic, in which all the conditions for its production occur in the patient herself. The remarkable susceptibility of the parturient woman to scarlatinal poison might readily be explained on the view laid down by Dr. Richardson as to the altered physiological state of pregnancy; and the condition immediately following parturition was one singularly prone to the inception of poison from without. The second form of puerperal fever is as distinct in its origin as those cases in which there is direct infection from zymotic disease, depending on the local derangement, and pyæmic or septicæmic in nature. It might be arrested in some cases by washing out the uterus. Here again there was great variability in the individual resistance to the poison. These cases mostly supervened at a later date after labour than those due to zymotic poison. The poison could be propagated in many ways, even by the exhalations of the attendants. Some puerperal women are more susceptible to such influences than others, in illustration of which he read an account of an outbreak of puerperal fever that occurred in the practice of the late Dr. Uvedale West, in which, of three patients delivered consecutively, after he had just come from a case of erysipelas, the first and third died, but the second had no fever at all. Dr. Barnes concluded by briefly answering the question propounded by Mr. Wells, and pointing out the difficulties of procuring complete isolation of patients in hospital practice.—Dr. SQUIRE did not think parturient women were specially predisposed to fever. He denied that any form of puerperal fever could be referred to attacks of some "infecting continued fever," and held that such attacks differed in no respect from the diseases in the non-parturient state. Cases of typhus, small-pox, measles, scarlet fever, or diphtheria run the same course in a parturient woman as in other subjects, and in his experience did not lead to puerperal fever, nor were they marked by unusual fatality. Erysipelas even might be classed with these diseases, although Dr. Rigby has quoted a case of erysipelas occurring in a child, whose mother suffered from puerperal fever. There was, however, far more danger in the induction of puerperal fever from practitioners attending women direct from the dissecting-room or dead-house.—Dr. JOHN BRUNTON, in his own practice, had failed to find such ready production of puerperal fever by contagion as had been generally assumed. He had frequently attended cases in which children, inhabiting the same room as the lying-in woman, were the subjects of scarlet fever, and yet there had been no puerperal fever; nor has he had a case of the disease in patients he has attended direct from making post-mortem examinations. The peculiar physiological condition of pregnancy was rather the natural preparation for labour, and no predisponent to fever. Recent observations he had made showed barely any rise in temperature in the post-parturient state. He believed, then, puerperal fever to be solely autogenetic and strictly comparable to pyæmia in surgical cases.—Dr. HUNTLEY (of Barrow), describing an outbreak of puerperal fever that occurred in his own practice, ten years ago, which compelled him to abandon midwifery practice for a time, said that he was forced to believe this arose from some peculiar poison generated at the time. He also believed that scarlet fever and small-pox never generated puerperal fever, but only their own special affection in parturient women.—Dr. BROWN (of Beckenham) adduced three cases in which the mother was exposed to scarlatinal poison (the children in the house having it, and the infant taking the disease) without any ill-effects.—Dr. SWAYNE (of Clifton) drew attention to the effect produced by the recent article in *The Times*, he having been recently requested by the husband of one of his patients not to attend his wife in her confinement, which was expected this month, because he (Dr. Swayne) had been called to a case of puerperal fever in March. The ill-fortune of some practitioners might be explained by differences in the capability of absorbing and inhaling poisons. He quoted a case in which scarlet fever came on *pari passu* with labour, and terminated fatally, and he concluded his remarks by some valuable counsel as to the precautions to be observed in the matter of personal cleanliness, change of clothes, &c., of practitioners attending cases of puerperal fever. Seclusion, if necessary at all, need never be for more than a week.—Dr. GRAILY HEWITT maintained that puerperal fever was essentially a form of blood-poisoning, and might be divided into two classes—viz., those cases in which there was distinct evidence of the introduction of morbid animal poisons from without, and those in which such evidence was wanting. The first class chiefly arose from direct inoculation, probably by the hands of the practitioner; many cases arose from the discharges from a lacerated perineum being pent up in the wound. In the second class, pyæmia was readily favoured by the condition of the uterus, whether in the non-puerperal or puerperal state; in the latter condition, want of proper contraction of the organ favouring the free ingress of septic material into the uterine sinuses. He thought that the mode in which the poisons of the specific form acted, was by inducing a subparalytic state of the uterus, and thus rendering it prone to the absorption of pyæmic poison.—Mr. CALLENDER, being called upon by the President, limited his remarks to septicæmia, for the prevention of which in surgical cases it was important that there should be no accumulation of discharge in wounds, that isolation should be carried out as far as practicable, and absolute rest of the parts. He fully believed that septicæmia could be produced in many patients if wounds were left to heal of themselves, and he concluded by paying a warm tribute to the value of the antiseptic treatment introduced by Prof. Lister.

After some discussion as to the date of the next meeting, it was finally resolved, on the motion of Dr. Savage, seconded by Dr. Wynn Williams, that the debate should be continued at the meeting in June, after the exhibition of specimens.

UNIVERSITY OF LONDON.

THE restriction on Candidature for Honours at the First M.B., Second M.B., and B.S. examinations, to candidates who have been placed in the first division at the several Pass examinations has been abolished.

At a meeting of the Senate held on the 27th ultimo the following gentlemen were elected examiners in medicine and collateral sciences for 1875–76:—

Experimental Philosophy: Professor A. W. Reinold, and Professor Balfour Stewart.
Chemistry: Professor Roscoe, and W. J. Russell, Ph.D.
Botany and Vegetable Physiology: Rev. M. J. Berkeley, and Maxwell T. Masters, M.D.
Practice of Medicine: Professor Wilson Fox, and Charles Murchison, M.D.
Surgery: Professor John Marshall, and W. S. Savory, Esq.
Anatomy: George W. Callender, Esq., and Professor George Viner Ellis.
Physiology, Comparative Anatomy, and Zoology: George J. Allman, M.D., and Professor William Rutherford.
Obstetric Medicine: J. Hall Davis, M.D., and Professor W. S. Playfair.
Materia Medica and Pharmaceutical Chemistry: T. Lauder Brunton, M.D., and Professor Sydney Ringer.
Forensic Medicine: Professor Arthur Gamgee, and Professor Henry Maudsley.

THE BIRMINGHAM MEDICAL INSTITUTE.

THE public meeting called to consider the plan of the proposed new Medical Institute, and to decide upon the steps to be taken in aid of its establishment, was held on May 4th, at the Midland Institute, under the presidency of Mr. George Dixon, M.P., and was well attended. After the solicitor, Mr. William Evans, had given a sketch of the history of the institution, and the chairman had called on the public "to come forward and assist in providing those means of study and education to a profession which from all time had been one of the most unselfish—one of those professions whose labours were not only beneficial, but essential to the communities in which they laboured," Mr. Jaffray proposed "That this meeting, having considered the objects sought to be obtained by the formation of the Birmingham Medical Institute, especially by the establishment of an extensive medical and scientific library, begs to express hearty sympathy with these objects, and its desire to render assistance in furthering them."

This resolution, together with a second appointing a large and influential committee for the purpose of carrying out the preceding resolution, was carried unanimously.

The meeting appeared to take for granted that the question of the admission of homœopaths was settled, but we assume that it is not yet decided from the fact that during

the week another meeting took place, at which a very large number of the practitioners of Birmingham and the neighbourhood were present, when it was determined to wait until the annual meeting of the members of the Institute was held, so that those members who disapprove of the admission of homœopaths may see whether the Committee are resolved to pursue their present course to admit homœopaths even at the cost of the enforced retirement of no inconsiderable number of the most sincere well-wishers and friends of the Institute.

Correspondence.

"Audi alteram partem."

EXAMINATIONS IN PHYSIOLOGY IN THE UNIVERSITY OF GLASGOW.

To the Editor of THE LANCET.

SIR,—Having just finished my winter's labour in the University, I take the earliest opportunity of referring to a report of the General Medical Council put by them on permanent record against me; and I have to request you to place my reply on the equally imperishable record of your pages.

The report to which I refer is made by Professor Humphry and Dr. Quain, members of the General Medical Council, along with Dr. Barclay and Mr. Power, visitors appointed by the Council. It relates to the examinations in Physiology at the University of Glasgow, and I reply to their report by an unqualified contradiction in so far as any blame connected with it is ascribable to me. *Quoad ultra* I offer no opinion.

I place Professor Humphry's name first because, being, as I understand, himself a physiologist, he cannot but be aware of the conditions under which alone practical physiology can be successfully taught, and thereafter fairly made a subject of examination. Had he condescended to communicate with me before writing his report, he would either not have written the report at all, or, supposing him to possess ordinary candour, he would have converted into eulogy his disparaging observations. I ask Professor Humphry if it be possible to teach practical physiology without instruments, without a cabinet in which to place the few that could be procured, without a laboratory, without funds, and without an assistant. All this I did for five-and-twenty years. So long as my son lived he and I did the whole work from the mere love of it, and without costing the University of Glasgow one farthing. On his death—a loss irreparable to me—I placed my necessities before the University authorities, requesting of them money to buy instruments and a laboratory, and funds to pay an assistant, and defray my expenses. I received a sum to buy instruments, but having not a single room or cabinet in which to place them I could only buy such as I could carry backward and forward from my own house. At length, after ten years, a laboratory is in process of construction, but there is no provision to keep it up, or for paying an assistant to keep it in order and take charge of the valuable instruments—the property of the University or my property—which must be deposited in it. Ten years seems to be the appointed time for all great struggles, from the siege of Troy downward to the Free Church conflict, and the laboratory fight in the University of Glasgow. How I wish that all my exploits could be recorded. But I am more luckless still than those heroes of antiquity whose sad fate the poet has so sweetly bewailed: "*Carent quia vate sacro*"; for not only have I had no bard to sing my praises, but I have had four discreet visitors from the General Medical Council, who have proclaimed me everywhere throughout the three kingdoms, with the name in full and in capital letters, as deficient in that very branch of physiology which it is my chief credit to have been one of the foremost to introduce into this country, and for which I have at length obtained a tardy recognition from the University of Glasgow.

The visitors further object to my questions as not calculated to test the knowledge of the candidates, and to my estimate of the answers as much above their merit. May I be allowed to ask for credentials of competency on the part of those gentlemen to pronounce summary judgment on my physiological questions? and, knowing of none, may I be allowed to suggest the following test of their capabilities? I subjoin a copy of the questions put by me on the 10th inst. to the candidates for M.B. of the present session. I have to request each of those gentlemen to send answers to THE LANCET with the usual attestation *sine auxilio*. I shall thereafter give through the same medium my estimate of their answers. The medical public will thus be gratified by hearing the opinion of learned men on some very interesting and much-contested physiological problems, and they will be enabled to judge both of the competency of the visitors to perform their high duties and whether it be true that I assign extravagantly high marks to answers of inferior merit.

I am, Sir, yours most sincerely,

April 26th. A. BUCHANAN.

[*Copy.*]

PHYSIOLOGY.—WRITTEN EXAMINATION.

1. Why does the blood move alternately faster and slower in the proximal part of its circuit, or that nearest the left ventricle of the heart; and why does it move with an equable velocity in the distal part of the circuit, or that nearest the right auricle?

2. At what part of the circuit is the unequable movement exchanged for the equable, and is it always at the same part?

3. Why is a pulsatile movement sometimes seen in the capillaries of the web of the frog's foot, and how can that movement be exhibited at will?

4. What is the error involved in the conclusion drawn from Lavoisier's experiments, that the excretion from the skin is greater than that from the lungs?

5. Explain and exemplify what is meant by voluntary movements; what by movements wholly, or in part, involuntary; what by automatic movements; and what by reflex movements.

N.B.—Three answers required, including either No. 4 or No. 5.

A NEW OPHTHALMIC OPERATION.

To the Editor of THE LANCET.

SIR,—Every ophthalmic surgeon must have read with amazement the description in THE LANCET of April 24th of "a new ophthalmic operation" recently performed by Mr. Brudenell Carter. According to your report, it would appear that the chief advantage claimed for this ingenious method of complicating one of the easiest operations in ophthalmic surgery—viz., "an iridectomy for optical purposes," is that a V-shaped pupil, having its broader extremity opposite the more central part of the cornea, is obtained. It is difficult to imagine that any experienced ophthalmic surgeon should not be familiar with the fact that a simple excision of the pupillary margin of the iris is followed by the same result, or that, with a knowledge of this fact, he should abandon a safe and easy procedure for one which is fraught with danger at every step; because, firstly, unless the patient is so profoundly anæsthetised as to be absolutely motionless, it is obviously less safe to introduce a knife behind the sclero-corneal junction than in front of it. Secondly, if when the scissors are passed beyond the pupillary margin with their "points" resting against the lens capsule, they are made to excise a fold of iris, the chances are that even in the hands of a dexterous operator traumatic cataract will not unfrequently ensue. Thirdly, supposing the operation to have been thus far successfully accomplished, the scissors are withdrawn, and there remains within the anterior chamber a detached fragment of iris, for the removal of which it is necessary to introduce a pair of iridectomy forceps; and although the excised piece of iris seems (in Mr. Carter's cases) to have evinced an obliging disposition to rush within their grasp, the evidence of three cases is not sufficient to warrant the assumption that so fortunate an event will always happen. It is, moreover, a well-known fact that the removal of loose bodies from the anterior chamber is often attended with very considerable difficulty and not less danger.

Finally, it is stated that Mr. Carter "proposes to use Calabar bean in his next case, with a view to steady the iris, as in one of the three cases upon which he has effected this operation he derived assistance from the presence of an anterior synechia." Happy thought! but great will be his disappointment when he finds that in Calabar-myosis, as in atropine-mydriasis, the escape of aqueous humour is followed by an instantaneous return of the pupil to its natural condition. I remain, Sir, yours truly,

Royal London Ophthalmic Hospital, May 3rd, 1875. F. BULLER.

CROUP AND DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—In your report of the observations I made at the Clinical Society on the subject of the identity of croup and diphtheria I am made to say that I have "recently been converted to the view that croup and diphtheria are identical." I should like to say that this does not quite express my position. The observations I made were to the effect that although I had long believed in the distinctness of the two diseases, this opinion of mine had recently been "rudely shaken"; and I instanced a case I had lately had under my care, which would probably have been registered as croup if a post-mortem examination had not shown it to be diphtheria.

But while I am entirely convinced that many cases of diphtheria have been registered as croup, I am far from believing that sufficient evidence has been produced to *settle* the question in favour of their identity, and I am altogether opposed to the tone of dogmatic finality which has been assumed by some on the identity side, as it is essentially hostile to that liberal and patient spirit of inquiry which in medical, as in all scientific investigations, can alone lead to real advancement in knowledge.

It has also occurred to me, in connexion with this discussion, that I have found a far larger experience and familiarity with cases of so-called croup, and with epidemics of diphtheria, amongst medical men in large general practice, especially in the provinces, than amongst the physicians of general hospitals in London. So far as I have been able to observe, cases of croup and diphtheria are comparatively rare in the general wards of London hospitals. As these cases are exceedingly acute, and often rapidly fatal, I am inclined to believe that by far the greater number of them fall, exclusively, under the observation of our brethren in large general practice, and it is to them therefore that we should look for evidence which may decide this dispute.

I am, Sir, your obedient servant,

[Hertford-street, Mayfair, May 1st, 1875. I. BURNEY YEO.

To the Editor of THE LANCET.

SIR,—I think that the limit of my remarks at the last meeting of the Clinical Society was missed by your reporter, whose accuracy on former occasions this session I am glad to have the opportunity of acknowledging.

I wished to point out that, whereas in an epidemic of diphtheria cases in which the inflammation falls mainly upon the larynx are exceptional, cases of membranous inflammation of the larynx are constantly being admitted into the London hospitals without one's seeing anything of the cases of ordinary diphtheria affecting the palate and pharynx, which ought to occur in still larger numbers if Sir W. Jenner's theory were correct.

I also remarked that such cases are, for the most part (if not always), non-infectious, whereas what I have seen of true diphtheria would lead me to believe that it is highly infectious.

These facts (to which may, of course, be added the arguments adduced by Dr. Moxon and others) appear to me to make it highly improbable that the cases of so-called croup, attended with the formation of false membranes in the larynx, which one sees so frequently in hospital practice in London, are *all of them* cases of diphtheria; and my belief is that scarcely any of them are so. But I am quite prepared to admit that *in each individual case* one may be unable to negative the possibility that the disease may belong to the laryngeal form of diphtheria.

I am, Sir, yours, &c.,

C. HILTON FAGGE.

St. Thomas's-street, Southwark, May 2nd, 1875.

To the Editor of THE LANCET.

SIR,—The interesting letter of Sir John Rose Cormack, published in THE LANCET of April 24th, induces me to offer what little assistance I can in throwing some light upon diseases which do not appear to be generally recognised as affecting animals. With regard to the transmissibility of diphtheria from the human to other species, I know of no instances except the one recorded by Professor Bossi and alluded to by your correspondent, and which may have been a case of transmitted disease. I may mention, however, that I have the notes of a case in which whooping-cough appeared to be transmitted to a dog from a child, who during the attacks of coughing frequently vomited, and the animal when present always devoured the expelled matters. I may also note that several cases of diphtheria have occurred in our barracks at Chatham quite recently, and though dogs are numerous and frequent the rooms occupied by those who have been affected, yet none have shown any symptoms of the malady.

Of the existence of croup and diphtheria in animals, there can be no doubt whatever. Simple membranous croup is not at all infrequent; young creatures are more disposed to be attacked by it than those which are old, and it affects all the domesticated animals, though the dog is more exempt than cattle or pigs; highly bred animals of the latter species are very liable, and in them the disease most closely resembles the human *angine couenneuse*, or *pseudo-membraneuse* of the French medical authorities. It has been witnessed in an epizootic form in cats, and it frequently prevails as an enzooty among poultry. The false membranes may be limited to the larynx, or they may extend to the pharynx, mouth, and nasal fossæ in one direction, and the trachea and bronchi in the other.

Diphtheria is certainly rare in animals, and has not yet been alluded to by veterinary writers in this country, I think. It nevertheless exists, and sometimes in a very marked form, differing from croupal angina by the great prostration which accompanies the formation of the diphtheritic exudations, and the tendency to a fatal termination. In addition, we observe a tendency to the production of plastic deposits wherever an artificial inflammation has been attempted to be set up. Blisters, for instance, instead of being followed by vesication or suppuration, are frequently succeeded by a more or less thick layer of fibro-albuminous matter. Setons are also often sheathed in a pseudo-membranous cylinder; the blood is very plastic at the commencement of the disease, and its clot is thick and very firm.

Diphtheritic exudations in the larynx and bronchi are somewhat common in cattle-plague, contagious pleuro-pneumonia, and some other bovine maladies.

We have no strong proof that croup or diphtheria is contagious in animals, except the former in fowls.

Two years ago I had a most interesting case of spasmodic croup in a troop mare, in which tracheotomy had to be resorted to.

I am, Sir, yours very obediently,

GEORGE FLEMING,
Veterinary Surgeon, Royal Engineers.

Brompton Barracks, Chatham, April 27, 1875.

To the Editor of THE LANCET.

SIR,—Allow me to say briefly that the nomenclature suggested by Sir John Rose Cormack appears to me to be likely to increase rather than to lessen the confusion which has resulted from the use of the unfortunate term "croup." He makes three species of the genus croup:—1st. Diphtheritic croup; 2nd. Simple membranous croup; 3rd. Spasmodic croup. The term diphtheritic croup is unobjectionable. "Simple membranous croup" is a substitute for what Trousseau calls "simple membranous *sore-throat*." Under this term Trousseau describes various forms of sore-throat, especially herpes of the pharynx; but the one great distinction between these cases and membranous croup is that they have no tendency to spread to the air-passages. I am not aware that Trousseau or any French writer of eminence uses a term which could be translated "simple membranous *croup*." "Spasmodic croup" Sir John Cormack describes as "the strangulatory affection in which there is no formation of false membrane;" and he adds that "this is the *faux* croup of French writers." But surely the *faux* croup of the French writers is the simple or non-specific inflammatory or catarrhal

laryngitis; another French term for it being "laryngite striduleuse"—stridulous laryngitis—while spasmodic croup is designated by them, as by us, "laryngismus stridulus," or "thymic asthma."

There can be no question that simple inflammatory croup, or catarrhal laryngitis, the "false croup" of the French pathologists, is as distinct from the purely spasmodic croup as it is from diphtheritic or true membranous croup.

I am, Sir, your obedient servant,

Savile-row, April 26, 1875. GEORGE JOHNSON.

"CROWNER'S QUEST LAW" IN GERMANY.

To the Editor of THE LANCET.

SIR,—Your readers will perhaps be interested to hear that the Medical Association (Genossenschaft der Arzte) of Dresden has just issued a petition, signed by Dr. Küchenmeister (the well-known helminthologist), and addressed to the "Imperial Commission of Law at Berlin," eventually to the Reichstag, in which the profession requests the Government to institute the "compulsory dead bodies' inquest after the model of the English coroner system." It is really astonishing that the Government should not have thought it necessary to give in the new penal code of the German Empire a regulation for so important a proceeding as the statement of death is considered to be by all civilised nations; the more so as several of the minor States of Germany have hitherto been enjoying the beneficial influence of one or other modification of the coroner system.

Another point in the new code to which the Genossenschaft objects very energetically is that in criminal cases the Government does not oblige the judge to take any notice of the sentence of the medical man, but leaves it entirely to the *bon plaisir* of the judge to do so or not. Dr. Küchenmeister shows, in a very elaborate historical sketch which is subjoined to the petition, that even in old times the opinion of the medical man in criminal cases was of the greatest influence, and that, with regard to the high standard of the medical science of our days, we are entitled to have a decisive vote *in foro*.

Most likely the petition of the Dresden Genossenschaft will be adopted by all medical societies of Germany, and it is to be expected that the Government will comply with the desire of the profession.

Hoping that you may find the subject of my letter worthy of your attention,

I remain, Sir, yours obediently,

Dresden, April 22nd, 1875. R. H. PIERSON, M.D.

SKETCHES OF CONTINENTAL HOSPITALS.

(*By our Special Correspondent.*)

VII.—VIENNA.

(*Concluded from page* 615.)

THE clinical work of the Allgemeine Krankenhaus begins at 8 A.M., and one of the earliest to lecture is Prof. Hebra. His clinique is large and always well attended, the fee for each session being one sovereign. In his wards burns and scalds, small-pox and other of the exanthemata are treated, in addition to almost every variety of skin disease proper. Not much instruction, however, is imparted at the bedside, but a number of selected cases are brought into the theatre, stripped, and either laid on a bed or placed in a circular movable chair in the centre of the square arena, where the professor and his assistants stand, and then a demonstration of the case is made. Hebra's style of lecturing is conversational, and at times jocular stories and witty remarks are interspersed with the more serious subjects of his discourse. Around the walls are models and drawings of the rarer cutaneous affections, which are from time to time referred to, but in the main the teaching is founded on the practical treatment of the vast crowd of in- and out-patients who are daily seen by the professor or his assistants. Dirt, and the bites of various insects, are a fruitful source of skin disease, particularly among the poorer Polish Jews, whose habits and dress are the reverse of cleanly; hence soft-soap is freely recommended. Eczema is treated as a purely local affection; unguentum diachyli, which is a combination of litharge, resin, soap, and oil, is frequently ordered for it, and then follows either the huile de Cade, tar ointment, or what Hebra, out of respect for a great English dermatologist, calls the unguentum Wilsonii, or benzoated zinc ointment. Brandy-and-water lotion is applied to relieve irritation in lepra and psoriasis, and arsenic is given internally, either in the form of solution of arseniated potass or in pill, one-tenth of a grain of white arsenic being thus given three times a day for a long period, and the remedy pushed until in some cases as many as 5000 pills have been taken. Lupus is treated by the application of the solid nitrate of silver and the internal administration of cod-liver oil. Baths, of which there are every kind in the hospital, are much ordered, and also various mineral waters, Carlsbad, from its aperient and cholagogue properties, being greatly in favour.

Billroth has the largest surgical class, and it includes many representatives of Russia, Italy, and America, also not a few from England and other countries. At 9.30 A.M. his theatre, a small place, barely large enough for his class, is filled, and rapidly are cases brought in (if necessary on their beds), examined, diagnosed, and, if their cases require it, operated on. One day a number of cases of nævus were brought forward. The pathology of the disease having been explained, Professor Billroth proceeded to operate. In four cases he passed several thin cotton threads, saturated with a solution of perchloride of iron, through the nævi, and after allowing them to remain four or five days he found great consolidation had taken place. A child aged ten, with nævus of the tongue and left side of the cheek, was also shown, who had been treated successfully by repeated punctures with the galvano-cautery. The good effects of the same apparatus were seen in a case of central epithelioma of the tongue of an old man. With one wire of the galvano-caustic écraseur the base of that organ is severed in a minute and three-quarters, and with another the circumference in two minutes and a half, and there is absolutely no hæmorrhage. Plastic operations are frequent; one frightful-looking woman, with syphilitic destruction of the face, presented herself to have the left lower eyelid restored; on a previous occasion Billroth had made her a new lower lip, and he proposed afterwards to furnish her with a new nose. Esmarch's bandage is in constant use, and one novel application of it was for syncope the result of hæmorrhage, both legs and thighs being rapidly bandaged, so as to drive more blood from the lower extremities to the heart, and so excite its action. Hydrocele of infants is treated by passing a thread through the tunica vaginalis. Pachyderma of the scalp, a disease common in Styria and Istria, characterised by great thickening and induration of the skin, is treated by the removal of elliptical sections of both the skin and subjacent tissues. Resections are all performed subperiosteally, and all except those of the hip seem to do well. In a case of phosphorus necrosis of the lower jaw, the whole of that bone had been taken away subperiosteally, and a new jaw was in course of formation. Lymphoma of the neck seems more common than with us, and the treatment consists in the injection either of one drop each day of solution of arseniated potass or the same quantity of a solution of chromic acid, one grain to a drachm. Another disease of debility, rachitis, is very frequent, and is treated by forcible straightening, or even fracture, of the bones of the leg, and then the application of splints. Wounds are left open; thus in a case of Syme's amputation at the ankle, which did well, Billroth simply had a drainage-tube passed from side to side, and the stump left perfectly uncovered. Sometimes he applies glycerine to wounds, but Lister's plan is not seen in his wards.

Professor Dumreicher has a theatre, which is larger and more commodious, adjoining that of Billroth. He is a great authority on military surgery, and is a good clinical teacher. His manner is sharper and not so attractive as that of his great surgical colleague, and his clinique is smaller. In Professor Dittel's wards are seen many cases of urinary disease—a subject on which he has written well. For stricture he uses a catheter which tapers to a point. Here also may be seen the elastic ligature as applied by the author of the practice in the treatment of hæmorrhoids, prolapsus ani, &c. One of the great advantages of the large Vienna Hospital is that all the specialities may be

studied within its walls. The length of this article precludes my doing more than mentioning a few of the more popular of their exponents. Dr. Schrötter has an excellent and largely attended clinique for diseases of the throat, and the laryngoscope may be seen in constant requisition. Professors Politzer and Gruber have each a ward for ear diseases; and in these wards are also seen daily a large number of out-patients. The use of the speculum, the Eustachian catheter, Politzer's bag, and other aural instruments may soon be acquired by students attending either of these classes.

The Vienna Ophthalmic School, which has always been celebrated, is worthily represented at the present time by Professor Arlt. Sigmund and Zeisal are the great authorities on syphilis, and from each much may be learnt; in fact, the number of opportunities of seeing different species of cases is so great that a visitor with a limited time at his command is puzzled what to see first, and his greatest regret is that he must leave a great deal that is of vast interest unseen. One thing, however, no visitor must neglect, and that is to visit the splendid pathological collection which has been brought together by the industry of Professor Rokitansky. During a life which has, happily for science, been protracted beyond the usual "threescore years and ten," he has laboured assiduously in the department of pathology, and has succeeded in raising to himself a monument which will ever remain as one of the triumphs of science. With the kind guidance of Dr. Conrad, to whom and to all the other *savans* of Vienna my thanks are here cordially given, I examined this rich collection, and I wish that I had space to mention a tithe of the interesting specimens it contains. It is to be regretted that the catalogue so long expected from Rokitansky has not yet been published, but with 3000 examinations to superintend per annum, besides other work, one cannot wonder at the delay in its appearance.

BERLIN.

(From our own Correspondent.)

THE fourth session of the Society of German Surgeons came to an end on the 10th inst. The meeting has proved a most successful one. As the President, Baron Langenbeck, mentioned in his opening address, such a society, containing representatives from all parts of the Empire, was only possible since the unification of Germany under the rule of an Emperor. I think the nature and *rôle* of this society are so little known in England that a few words about it may probably interest your readers. It is, in the first place, exclusively surgical, and its members consist of the professors and teachers of surgery of the German Universities, and other hospital surgeons. During the meeting, which lasts over four days, a great deal of work is done, but the quantity of material presented is greater than can be discussed in the time. Each morning at ten o'clock a demonstration takes place in the theatre of the Langenbeckschе Klinikum. Here preparations are shown, and patients, brought often from long distances, on whom successful operations have been practised, are exhibited. At twelve the members adjourn to the Aula of the University, where more elaborate communications are brought forward, and discussions take place. All communications are made *vivâ voce* from a tribune, no person being permitted to read a paper. This plan is in certain respects advantageous, but it has this evident disadvantage that in some instances long-winded orators spend half an hour or more on what might, if written out, have taken but fifteen minutes to read, so far as the essential nature of the subject-matter is concerned. One day was almost completely monopolised by bacteria. Professor Klebs, of Prague, spoke for some two hours without a break about the relation between bacteria and the infective diseases, following a young army surgeon, Herr Arnold Hiller, who had detailed some valuable experiments he had made on the same subject. The treatment of wounds is another "burning question" about which there were many discourses. Prof. Lister has many enthusiastic disciples among the German surgeons, Prof. Volkmann, of Halle, in particular. Prof. Thiersch, one of the most scientific and admirable of the German professors, has replaced, he believes with the greatest advantage, carbolic acid by salicylic acid, and the results of his experiments with it, now extending over a year, are given in Volkmann's series of surgical monographs.

Professor Thiersch exhibited at the Klinik two remarkable cases. One was a man in whom amputation of the penis had been practised close to the pubes for cancer; instead, however, of treating the divided end of the urethra in the usual way, he split up the scrotum, dissected the remaining portion of the spongy urethra from the corpora cavernosa, turned it down to the perineum, where he fastened it at the mid point. The wound healed quickly, and the patient makes water very comfortably, after a feminine fashion. Another was a case of complete extroversio vesicæ and epispadias. Lateral flaps were taken from the abdomen in two operations, the prepuce was brought over the urethra as a third flap, and the result was complete closure, a soft india-rubber pad worn over the front of the pubes enabling the patient to retain water for four hours. A little was injected by way of demonstration, and when the pressure was removed it came forth in a strong jet. The man is a young adult. The opinion seemed to be strongly against operation in these cases before six or seven years of age at least. The abdomen flaps should be twice as large as is ultimately required, to allow for shrinking; one is dissected from each side of the cleft down to the aponeurosis, the ends being left attached till granulations spring up; then one end of the bridge, the upper one, is cut through, and the flap turned across the opening, the skin surface remaining external. The hair growth is, Professor Thiersch considers, an insuperable objection to inverting the flaps—the method very often adopted hitherto. One case was exhibited by Professor Heine, of Prague, in which he had excised the larynx for almost complete stenosis, probably of syphilitic origin. With the artificial larynx, invented by Gussenbauer, the man, previously without any voice whatever, could plainly speak, being audible to everyone in the crowded theatre. By changing the metal tongue in the instrument, the timbre of the voice could instantly be changed, with the most ludicrous effect, from bass to soprano or anything intermediate. Dr. Reyher has incised the larynx in a somewhat similar case with a quite successful result on the voice on the introduction of the artificial larynx. Herr Schmidt, of Frankfort, gave details of a case of larynx resection for cancer, which proved fatal. Herr Mosengeil, of Bonn, exhibited an apparatus which promises to increase the applicability of the galvano-cautery. The wire is heated by means of a powerful electro-magnetic machine. Four turns of the handle, by which the machine was worked, sufficed to make about six inches of platinum wire white hot in about as many seconds. The machine costs 200 thalers, but it has the immense advantage of being always ready, and not easily put out of order. Professor von Langenbeck, the president, exhibited, amongst other things, several cases of wrist-joint resection, gave an account of what he considered the best method of extirpating the tongue, and exhibited a patient, a young boy, with what he calls retro-maxillary tumour, a growth of fibrous character springing from the neighbourhood of the spheno-palatine foramen, filling the naso-pharyngeal cavity and projecting outwards above and below the zygoma. These tumours he removes by his most beautiful *osteo-plastic* resection of the upper jaw. The bone, with its superjacent soft parts, is turned up in one flap, the tumour enucleated and the parts replaced. I cannot, however, here enter into the details of a somewhat complicated operation, but merely say the results have proved very brilliant. The disease appears to be more rare in England than here. He advocated early operation, as there was great tendency to perforation of the base of the skull. It is quite impossible to relate one tithe of the valuable and interesting material which was brought forward and discussed, but besides what will appear in the *Berliner Med. Wochenschrift*, the Society publishes a volume of Transactions. The Empress takes a lively interest in the proceedings, saying she would exceedingly like to be present, could she only remain unobserved and unremarked. Each morning she receives the "Tages Ordnung" table of proceedings, and on Friday was good enough to request to see some members of the Society at the palace, when she discussed with them the various matters of importance which had been debated at the Congress, especially how the "Lister's dressing" might be cheapened

and made more available. She was quite aware of the effort to replace it by salicylic acid dressings which was being made by Professor Thiersch; and, indeed, showed herself intimately acquainted and sympathetic with all matters medical. The Emperor also came in during the interview, chatting and joking in the most unaffected manner, and enjoying extremely an anecdote which he told about Dieffenbach. He said, however, that admirable doubtless as all these things might be of which we had been talking, for his part he would much rather do without them; and it seems the Emperor has had much to do with surgeons, since at one time or another he has fractured nearly every bone in his body, not excluding a fissure of the skull. Those who were invited were Professor Esmarch, of Kiel; Professor Thiersch, of Leipsig; Dr. Roth, Director-General of the Saxon Army; Professor Hueter, of Greifswald; Professor Rose, of Zurich; Mr. Mac Cormac, of London.

It is scarcely known in the English medical world that on each of the four great bas-reliefs which stand out prominently on the base of the Column of Victory at the Brandeburger Thor is the likeness of a surgeon. These bas reliefs represent culminating victories of German arms during the campaigns of the past few years, and amidst the crowd of victorious generals, of kings, and princes, whose likenesses are faithfully rendered in the bronze, appear on equal terms the faces of distinguished members of our own profession. On one appears Langenbeck, on the second Wilms, on the third Boeger, and on the fourth Wegener. *Sic vos non vobis* does not apply here. The only representatives of English surgery who assisted at the Congress were Professor Macleod, of Glasgow, and Mr. Mac Cormac, of St. Thomas's Hospital.

Berlin, April, 1875.

Obituary.

GEORGE ROBINSON, M.D., F.R.C.P.

THIS eminent physician and physiologist, whose death occurred recently, was descended from a family settled at Weardale, in Durham, nearly three centuries ago. He was the eldest son of George Robinson, Esq., formerly of Newcastle-on-Tyne. Born in January, 1821, he received his education at Shrewsbury in days when, under the mastership of Dr. Butler (subsequently Bishop of Lichfield), this old school stood in high repute. Among Dr. Robinson's contemporaries was the present Archbishop of York, also a North of England man. Leaving Shrewsbury he became the pupil of Mr. (afterwards Sir John) Fife, of Newcastle-on-Tyne. Mr. Fife was surgeon to the infirmary, and occupied a leading position in the profession there. Between him and his distinguished pupil, who afterwards became a co-lecturer at the College of Medicine, a warm friendship existed through life. During pupilage Dr. Robinson proceeded to Paris, and studied there. He attended lectures first at the Newcastle School, where at the outset he gave augury of future distinction by gaining the prize for Anatomy and Physiology. Afterwards he passed a session at Edinburgh, and finally completed his curriculum at Guy's Hospital. Here he gained several medals, and before he reached his twenty-first year, and consequently before he could qualify, he published a *brochure*, dedicated to Dr. Bright, "On Granular Disease of the Kidney." This little work, besides showing originality and observation, afforded proof of literary power very apparent in the author's later publications.

Dr. Robinson passed his examination at the College of Surgeons, and graduated at St. Andrews. He first settled in London, but before long removed to Newcastle-on-Tyne. He became resident physician to the Dunstan Lunatic Asylum, and subsequently to the Bensham Asylum, of which he afterwards became proprietor. The fruits of his experience in mental disease were recorded in a small volume, published in 1858, "On the Prevention and Treatment of Mental Disorders." Dr. Robinson, however, had continued to give his attention to the subject which first interested him in an especial degree—diseases of the kidney,—and the results of his experiments and observations on the consequences of compression of the renal vessels were communicated to the Medico-Chirurgical Society by Dr. Marshall Hall as far back as February, 1843. He showed that mechanical impediment to the venous circulation of the organ, whether complete or partial, sufficed to cause albuminous urine. Further papers on the Mechanism of Absorption followed in the pages of THE LANCET. The whole, forming the most important and valuable of his contributions to medical science, were published (1857) in a volume entitled "Contributions to the Physiology and Pathology of the Circulation of the Blood."

Dr. Robinson was amongst the earliest members of the profession to recognise the urgent need of sanitary reform in our large towns. In a lecture (published) and by the formation of a society to deal with an evil which existed to a marked degree at Newcastle, he sought to arouse the municipal authorities to a sense of the danger to life and health. He afterwards became a member of the corporation, filled the office of sheriff, and was thus enabled to benefit the public by his position there.

Dr. Robinson became a Licentiate of the College of Physicians in 1852, and was elected to the Fellowship in 1858. He was an Honorary M.D. of Durham. Conjointly with the late Dr. Charlton, he lectured on the Practice of Physic at the Newcastle School of Medicine.

Some years back his health became broken, and he resided abroad. Returning to England at the close of the year, it was evident that he was suffering from organic disease (aortic) of the heart. He rallied somewhat, and ventured to return to the North. This procedure was unfortunate. The weather was very cold, and pneumonia in one lung supervened. Partial relief was obtained by the advice and attention of his friend Dr. Gibb, of Newcastle; but, after much suffering, he succumbed to the combination of diseases on the 10th March.

The genial, kind disposition of Dr. Robinson endeared him to his friends and the members of his own profession. In conversation, no one could fail at once to observe the originality of his conception, the amount of his knowledge, and the variety of his attainments in almost every branch of science, particularly chemistry and metallurgy. Among his unpublished MSS. are sacred and other poems of no slight merit.

Dr. Robinson was married in early life to Elizabeth, daughter of the Rev. Dr. Crosthwaite. This lady died in childbirth within a year, and he remained a widower. A younger brother, Dr. Frederick Robinson, of the Fusilier Guards, is the only surviving member of the family.

D. P. EVANS, M.B.,

OF BELPER.

WE cannot allow to pass unnoticed the loss our profession has sustained in the death of this gentleman. It took place on Tuesday, the 20th ult., after a month's most painful and distressing illness, terminating in abscess (pyæmic) of the brain. He was the fifth son of the late Mr. D. Evans (who for upwards of forty years was one of the most distinguished surgeons in the midland counties), and brother to the late Dr. Evans, of Birmingham. Another brother, who attended him in his last illness, is Mr. S. H. Evans, who has lately retired from the practice of his profession after a long and honourable career at Derby. Mr. Evans received his education at King's College, London, and took the degree of M.B. in 1845 at the University of London, coming out in the first class in his examination.

No sooner did the serious character of his illness become known than a profound sensation of anxiety and sorrow pervade the neighbourhood far and wide. This culminated at his funeral, which presented a scene rarely witnessed; it was attended, it was calculated, by at least 1500 people of all ranks. Middle-aged men were seen sobbing like children, and old men looked on with eyes streaming with tears.

Now, to what cause was this to be attributed? He was doubtless an able and judicious physician, a most skilful and self-reliant surgeon, a man thoroughly to be trusted in every department of his noble profession; he, moreover, possessed naturally a singular amiability and gentleness of character, combined with an unobtrusive charm of manner, which won the affection of all who knew him. Above all, he was a Christian in the true sense of the word, ever ready with a word of spiritual advice and comfort, not rarely as beneficial to the patient as the exercise of the highest medical skill. But it was to his treatment of his more serious cases

that came under his notice that his popularity was mainly owing; the whole force and beauty of his character were then manifested; all his energies were called into action. He spared neither time nor labour nor even money in cases where he could look for no remuneration, and not in one case or two only, but in many. We need not wonder, then, that a feeling of love and admiration for him personally had gradually but secretly diffused itself through all classes, and that it found its outlet when the end came, and they saw him cut off in the prime of life. He was only fifty-three when he died.

PARLIAMENTARY INTELLIGENCE.

Week ending May 6th.

HOUSE OF LORDS.

VIVISECTION.

A Bill to regulate the practice of vivisection has been introduced into the House of Lords by Lord Henniker. It proposes to enact that after the 1st of January next vivisection is only to be performed in places duly registered, and upon notice being given to the Secretary of State, or, in Ireland, to the Chief Secretary. Any inspector of anatomy may at any time visit and inspect a registered place. Anæsthetics are to be employed for purposes of vivisection, except a special licence, for which a sum not exceeding £10 shall be paid, has been granted by the Secretary of State. The penalty for an offence against the Act is not to exceed £20.

HOUSE OF COMMONS.

MEDICAL OFFICERS OF THE ARMY.

Mr. GEORGE BROWNE asked the Secretary of State for War whether it was his intention to recommend an increase in the half-pay of medical officers of the army after twenty years' service, as had been recently done in the navy; and if so, when a Warrant on the subject was likely to be issued.

Mr. HARDY said that the complaints of the medical officers of the army were receiving full consideration, but it would be premature to express an opinion upon one part of the case. He was informed that the hon. gentleman had not correctly represented what had been done in the navy; but, at all events, he was not at present in a position to answer the question.

Mr. HARDY, in answer to a question by Dr. O'Leary, stated that in a few instances exchanges had been refused to army medical officers who had been a long time at home, and where the foreign service was disproportionately small. No reasonable application, however, had been refused.

THE VACCINATION ACT AT KEIGHLEY.

The attention of Government was called to the non-compliance of the Keighley Guardians with the Act.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members of the College on the 29th ult.:—

Bowles, Robert Leamon, M.D. Brussels, Folkestone.
Goodhart, James Frederic, M.D. Aberd., Finsbury-square.
Lees, David Bridge, M.B. Camb., Manchester.
Turner, Francis Charlewood, M.D. Camb., St. Thomas's Hosp.
Warwick, William Rollinson, M.D. St. And., Lambert-road.

The following gentlemen were admitted Licentiates of the College on the same day:—

Alford, Frederick Stephen, Haverstock-hill.
Barron, Thomas Walter, Sunderland.
Boulter, Harold Baxter, St. Bartholomew's Hospital.
Bradford, Peter, University College Hospital.
Brown, Walter, Tetbury, Gloucestershire.
Bull, William Henry, St. George's Hospital.
Burgess, Edward John, St. Bartholomew's Hospital.
Edwards, David, Mold.
Evans, Henry, Bramley-hill, Croydon.
Garlick, George, University College Hospital.
Granger, Farington Marsden, Public Dispensary, Leeds.
Hallett, Henry Arthur, Southwood-terrace.
Johnston, Wingate Kidd, Beverley-road.
Kennedy, William Adam, Newcastle-on-Tyne.
Lattey, Arthur, Willingham, Huntingdonshir
Morrieson, Stammers, Albert-square.
Smith, Charles Edwin, Royal Infirmary, Manchester
Watts, Fred, Bartholomew-close.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the primary examination in Anatomy and Physiology at meetings of the Court of Examiners on April 29th and 30th, and May 3rd and 4th:—

R. G. Bailey and J. W. Hinings, Leeds; E. Blacker and H. G. Milner, Bristol; C. Green, T. G. Ainsley, and M. Malvin, Newcastle-on-Tyne; J. Bibby, L. W. Davies, and R. S. Wilson, Liverpool; J. D. Grant, J. Cowper, John Hassall, and C. E. H. Warren, Edinburgh; E. W. Pryce, S. T. Plumbe, J. R. Thomas, and W. B. Rigby, St. Bartholomew's Hospital; F. G. Baker, H. J. L. Bennett, S. H. Creagh, and W. H. F. Young, St. George's Hospital; A. J. Smith, John Webster, W. T. Steventon, T. Sayer, J. P. A. Gabb, A. E. Broster, J. R. Salter, R. Heald, F. W. S. Culhane, W. R. Nicholson, L. Fabien, P. Cooper, S. R. Corder, J. Hudson, R. G. Buckby, F. S. Goulder, and J. Mortimer, University College; E. B. Granger, A. Pain, A. C. Morton, R. A. Birdwood, C. T. K. Shaw, H. Dismore, W. F. Hearnden, J. W. Collington, W. L. Chubb, W. Strover, H. L. Manby, A. St. Clair Buxton, J. F. M'Crea, A. G. Collington, W. D. Stamp, E. Lynn, C. St. I. Wright, A. Burt, H. J. S. Liddell, R. Lee, and J. T. Hinton, Guy's Hospital; E. Jackson, T. H. Parke, G. Kisby, C. A. Bradley, T. C. Booth, and A. Blackmore, Manchester; J. S. Battams and P. S. Jakins, St. Mary's Hospital; A. P. Young, Edinburgh and St. George's Hospital; G. E. Crallan, Cambridge; S. P. Woolley, Glasgow and St. Thomas's Hospital; C. B. Lewis, N. S. Foster, A. B. Harris, T. W. Coffin, T. F. Ensor, H. E. F. Cross, F. H. Corbyn, R. B. Tudor-Risk, F. Marsh, E. C. Watts, and W. P. Tritton, King's College; E. L. G. Gamble, F. E. Cockell, H. N. Pendleton, E. W. G. Goodridge, E. J. Loader, F. R. Barker, R. H. Campbell, and R. D. G. Hall, St. Thomas's Hospital; M. Davies, London Hospital; E. P. Evans, Middlesex Hospital; E. H. Dumbleton, Birmingham; H. T. Hamilton, Charing-cross Hospital.

Of the 176 candidates examined during last and the present week, 55 failed to satisfy the Court, and were referred for three months' further anatomical and physiological study.

The next pass examination for the diploma of the College will be held on the 14th inst., and the first and second part of the professional examination for the Fellowship will commence on the 21st and 27th inst. respectively.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on April 29th:—

Cambridge, Thomas Arthur, Gower-street.
Farnell, Henry Dawson, Westgate-terrace, Kensington.
Foster, Henry George, Crane-hill, Ipswich.
Hallett, Henry Arthur, Highgate.
Harris, Stanford, High Ardwick, Manchester.
Smith, Rowland Dunn, York House, Chatteris.
Tomkins, Henry, Great Berkhamstead, Herts.

The following gentlemen passed the Primary Professional Examination on the same day:—

Stephen Bernard Broome, Marischal College, Aberdeen; John Gilliott Garbutt, Arthur Breedon Wade, and Henry Wickham, St. Mary's Hospital; Lawrence Mahony, London Hospital.

DR. ROBERT BRADSHAW, of Carrick on Shannon, has been placed on the Commission of the Peace for the County Leitrim.

A HEALTHY TOWNSHIP.—From the last monthly report of Dr. Limrick, medical officer of health for Waterloo, Lancashire, it would appear that the death-rate of the township during April figured as low as 8·64 per 1000 per annum. Last year the mortality was at the rate of only 12·53 per 1000.

Medical Appointments.

ANNINGSON, B., M.B., M.R.C.S.E., has been appointed Medical Officer of Health for the Cambridge Urban Sanitary District: £250 for one year.

AVELING, E. B., B.Sc., has been appointed Lecturer on Comparative Anatomy at the London Hospital Medical College.

BIRD, C. H. G., M.B., L.R.C.P.L., F.R.C.S.E., has been appointed an Assistant-Surgeon to Guy's Hospital.

BLAKISTON, Mr. A. A., has been appointed a Resident Clinical Assistant at the Hospital for Consumption and Diseases of the Chest, Brompton, vice Bernays, whose appointment has expired.

BRABAZON, A. B., M.D., has been appointed a Physician to the Mineral Water Hospital, Bath, vice Coates, resigned.

CARTER, R., M.B., M.R.C.S.E., has been appointed a Surgeon to the Mineral Water Hospital, Bath, vice Bartrum, resigned.

GAYLOR, E., L.R.C.P.Ed., L.M., L.F.P. & S. Glas., has been appointed Certifying Factory Surgeon for Belper, vice Evans, deceased.

HEMMING, C., M.D., M.R.C.S.E., has been appointed Medical Officer for the Workhouse, and Medical Officer and Public Vaccinator for No. 2 District of the Abingdon Union, vice Parkes, deceased.

HOWES, H. G., M.B., F.R.C.S.E., has been appointed a Surgeon to Guy's Hospital.

HUTCHINSON, V., M.D., M.R.C.S.E., has been appointed Certifying Factory Surgeon for Bishop-Auckland.

JACKSON, J., L.R.C.P.Ed., L.R.C.S.Ed., L.M., has been appointed Medical Officer for the North Bierley Union Workhouse, vice Fawthrop, resigned.

KITCHENER, T., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Etwall District of the Burton-on-Trent Union, vice Thomas, deceased.

LUCAS, R. C., M.B., L.R.C.P.L., F.R.C.S.E., has been appointed an Assistant-Surgeon to Guy's Hospital.

M'CORMACK, M. P. C., L.R.C.P.Ed., L.R.C.S.Ed., L.A.H., L.M., has been appointed Government Medical Officer, Jamaica, W.I.

MARSHALL, J. I. F., M.R.C.S.E., has been reappointed Medical Officer of Health for the York Rural Sanitary District: £200 per annum.

MILL, C. J., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Parish of Kirriemuir, Forfarshire, vice Webster and Wilson, whose appointment has expired.

MOLONY, J., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Dromahaire Dispensary District of the Manorhamilton Union, Co. Leitrim, vice Palmer, resigned; also Sanitary Officer.

ORR, J. W., L.R.C.P.Ed., has been appointed a Resident Clinical Assistant at the Hospital for Consumption and Diseases of the Chest, Brompton, vice Kelly, whose appointment has expired.

PALMER, M. H. C., M.R.C.S.E., has been appointed Medical Officer for No. 2 District of the Newbury Union, vice Silas Palmer, M.D., L.R.C.S.Ed., deceased.

PATTERSON, T., A.B., M.D., has been elected Medical Officer to the Oldham Workhouse, vice S. Jackson, M.R.C.S., retired.

POWELL, B. D., M.D., F.R.C.P.L., has been appointed a Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

SANDELL, H. W. A., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Milton District and the Milton Inmates of the Workhouse of the Gravesend and Milton Union, vice Goodiehe, resigned.

STEWART, Dr. R. S., has been appointed Junior Resident House-Surgeon to the Ardwick and Ancoats Dispensary, Manchester, vice Sutherland.

SUTCLIFFE, A. E., M.R.C.S.E., has been appointed Medical Officer to the School for the Deaf and Dumb, Manchester, vice Smith, deceased.

TATHAM, J., M.D., M.R.C.P.L., has been appointed a Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

THOMAS, D., M.D., L.R.C.S.Ed., has been appointed Medical Officer for the Eastern District of the newly formed Pontardawe Union; also Medical Officer of Health.

TURNER, H., M.R.C.S.E., has been appointed Certifying Factory Surgeon for Taverham, near Norwich, vice Francis, deceased.

UNDERHILL, H., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 9, or Ugborough District of the Totnes Union, vice Jelley, resigned.

VINES, H. J. K., L.R.C.P.Ed., M.R.C.S.E., has been appointed Certifying Factory Surgeon for Littlehampton.

WALLIS, J. A. M., L.R.C.P.Ed., L.R.C.S.I., has been appointed Resident Medical Superintendent of the Hull Borough Lunatic Asylum, vice Casson, resigned.

WILSON, J. M., M.B., C.M., F.M.S., has been elected Medical Officer of Health for the Chatteris Urban Sanitary District: £37 per annum; acreage 13,394; population 4770.

Births, Marriages, and Deaths.

BIRTHS.

CLOUTING.—On the 3rd inst., the wife of J. R. Clouting, M.R.C.S.E., of Thetford, of a daughter.

EASTES.—On the 30th ult., at Albion-place, Hyde-park-square, the wife of Geo. Eastes, M.R., of a daughter.

FARNFIELD.—On the 30th ult., at Brixton-road, the wife of W. E. Farnfield, L.R.C.P.Ed., of a son.

HOCKEN.—On the 30th ult., at The Limes, Wood-green, the wife of Chas. E. Hocken, M.D., of a daughter.

HOLMAN.—On the 27th ult., at East Hoathly, the wife of Thomas Holman, M.R.C.S.E., of a daughter.

SMITH.—On the 1st inst., at Notting-hill-terrace, the wife of Joseph Smith, M.R.C.S.E., of a son.

VISE.—On the 23rd ult., at Holbeach, the wife of A. B. Vise, M.R.C.S.E., of a son.

MARRIAGES.

DYSON—ANDREWS.—On the 5th inst., at Thurgoland, William Dyson, M.D., B.A., of Brook House, Sheffield, son of John Dyson, J.P., of Thurgoland, near Sheffield, to Eliza Jane, daughter of the late Thos. Andrews, of Wortley, near Sheffield.

FALKNER—WILLIAMSON.—On the 29th ult., at the Presbyterian Church, Kingstown, Dr. Robert Falkner, to Annie, daughter of Gerald Williamson, Esq.

HILLIARD—HOULDER.—On the 29th ult., at All Saints, Kenley, Henry Chas. Hilliard, M.D., of York-town, to Kate Elizabeth, younger daughter of Alfred Houlder, Esq., of The Tower, Kenley, Surrey.

DEATHS.

BLACK.—On the 19th ult., Daniel Robt. Black, M.D., of Forth-street, Edinburgh.

CROTTY.—On the 29th ult., Richard S. Crotty, L.R.C.P.Ed., of Liverpool, aged 35.

HAMMOND.—On the 27th ult., at Pitt-street, Edinburgh, Wm. Hammond, M.D.

KAVANAUGH.—On the 30th ult., Michael T. Kavanaugh, L.R.C.P.Ed., L.S.A., of Jamaica-road, Bermondsey, in his 27th year.

LANG.—On the 25th ult., at Fawcett-street, Sunderland, John Lang, Surgeon, aged 78.

MAC SWINNEY.—On the 1st inst., James Mac Swinney, L.A.H.D., of Galway, aged 64.

NORMAN.—On the 22nd of March, at Rio de Janeiro, Hugh Norman, L.K.Q.C.P.I., Medical Officer S.S. "Monmon," aged 28.

THOMAS.—On the 21st of March, at Upper Stewacke, Nova Scotia, Walter Thomas, M.D.

TUKE.—On the 27th of March, at Burnwell House, Wyke St. Mary, Joseph Shilson Tuke, L.F.P. & S. Glas., L.M., Medical Officer of the Stratton Union, aged 42. Deeply regretted by a large circle of friends.

WILKINSON.—On the 25th ult., John Wilkinson, M.R.C.S.E., of Charlotte-street, Hull.

[N.B.—*A fee of 1s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

THE TRANSFUSION OF BLOOD.

PENDING the publication of Dr. Morselli's monograph on Transfusion, to which we referred in THE LANCET of April 17th, p. 561, it may be well to enumerate some of the sources of information on the history of this revived device in the practice of medicine. The work on which our note was based is the treatise of Dr. Alfonso Bos, entitled "Cenno Storico sulla Trasfusione del Sangue" (Florence, 1875), to which we refer our correspondents for fuller details than we could give. Another excellent work on the same subject is Prof. Azzio Caselli's "Sulla Trasfusione" (Bologna, 1874). Our authority for the fact that transfusion was made from three youths to the decrepit Pope Innocent VIII. (Joann. B. Cibo, of Genoa) is Villari's "Storia di Girolamo Savonarola," from which masterwork we extract the following:—

"Le forze vitali d'Innocenzo VIII. svanivano rapidamente: egli era da più tempo caduto in una specie di sopore, cresciuto qualche volta sino al punto di farlo creder morto a tutta la Corte. Si cercava invano ogni mezzo per ridestare la spenta vitalità del Papa, quando un medico ebreo propose di tentare con un nuovo strumento la trasfusione del sangue; cosa tentata fino allora soltanto sugli animali. Il sangue del decrepito Pontefice doveva passare tutto nelle vene d'un giovine che dovea cedergli il suo. Tre volte fu tentata la difficile prova, nella quale, senza alcun giovamento del Papa; tre giovanetti perderono successivamente la vita; forse a cagione di aria introdottasi nelle loro vene. Il giorno 25 Aprile 1492 cessava di vivere Innocenzo VIII."

Translation.

"The vital forces of Innocent VIII. were failing rapidly; he had for a long time lapsed into a kind of coma, occasionally so intense as to make all his Court believe him dead. Every means was sought to rouse the low vitality of the Pope, but in vain, till a Jewish physician proposed to try, with a new instrument, the effects of transfusion of blood—an experiment till then made only on the lower animals. The blood of the decrepit Pontiff had all to pass into the veins of a young man, who was to yield him back his own. Thrice was the difficult trial made, in which, without any relief to the Pope, three youths successively lost their lives, perhaps on account of air introduced into their veins. On the 25th of April, 1492, Innocent VIII. ceased to live."

The views as to "the true *modus operandi* of transfusion" on which we commented will be found in the treatises of Drs. Bos and Caselli. If we mistake not, Dr. Morselli's forthcoming monograph will be mainly directed to estimating at its real value an operation in which account has not yet been scientifically taken of the constitution, life, and death of the blood-corpuscles. Meanwhile, our remarks will be found corroborated by those of one of the acutest of living physicians:—

"Quando trasfondendo nelle vene di un malato pochi ettogrammi di sangue d'agnello o di uomo sano, si crede *seminarvi* dei globuli che possano esser padri di una nuova e prolifica generazione di elementi gagliardi non si fa della scienza, ma si sogna di pien meriggio e cogli occhi aperti."

M.R.C.S., L.S.A.—We do not think there would be any legal grounds for prosecution under the Act in such a case.

THE SYSTEM OF USING OLD BANDAGES.

To the Editor of THE LANCET.

SIR,—Among the many agents which tend to propagate pyæmia in our surgical wards, I cannot help thinking the use of washed bandages most powerful. This system of washing bandages is adopted in the greater number of the provincial hospitals, and too frequently, I fear, with the result of setting up blood-poisoning in comparatively healthy subjects. The bandages which have been used for foul suppurating sores are very often sent to the wash, and afterwards, without hesitation, applied to the wounds of patients. We have long been warned against using the same sponge for a number of patients, but seldom or never against the use of old bandages. Doubtless sponges are more liable to resist cleansing operations than bandages are; but it is, I think, absurd to suppose that the plan adopted by an ordinary washerwoman can entirely remove the impurities which have been absorbed by the latter. Any bandage that has been used for an open wound ought to be at once destroyed. Against those employed in the treatment of simple fractures the same objection does not perhaps exist; but it would be well for the surgeon to insist upon being provided with new bandages for every occasion. The frightful effects of blood-poisoning ought not to be risked in order to save hospitals the paltry expenditure of an additional few pounds during the year.

Your obedient servant,

April, 1875. CHARLES DAVIDSON.

A Medical Friend is thanked for his courteous communication. It was entirely due to an oversight of one of the clerks in the Office.

Mr. R. L. Elliot.—The Hospital for Incurables, London.

"REYNOLDS'S SYSTEM OF MEDICINE."

To the Editor of THE LANCET.

SIR,—Can you tell me if there is any prospect of the completion of "Reynolds's System of Medicine"? The first volume was published nine years ago, and four years have passed since the third volume was issued. The fourth and concluding volume was announced as "in the press" months ago, but it was not published. It is well known that a work made up of the contributions of numerous writers, busily engaged in professional duties, is produced under more than ordinary difficulties, and therefore allowance is made for reasonable delay; but it is scarcely fair to subscribers that the first volume should bid fair to become antiquated before the last volume is published.

Yours faithfully,

March 18th, 1875. F.

THE CANVASSING SYSTEM AT THE MEDICAL BENEVOLENT COLLEGE.

MOST people are agreed that this system is a deplorable mistake, and that under its sway the deserving are thrust aside; whilst the schemers, the vote-dealers, and those who have money at command succeed. This mischievous state of things has been keenly felt, and is successfully combated by the Charity Voting Association. As many as 1300 subscribers to the Medical Benevolent College have signed a memorial to the Council of the College, praying that the canvassing might be abolished; and this document was on the 5th inst. read before the Council by a deputation, very small in numbers, but composed of men of standing. Sir Charles Trevelyan took this opportunity of pleading the cause of the association before the Council, and retired. The President then intimated that nothing could be done in the presence of the deputation, and rose as if to dismiss it. Mr. Hogg and Dr. Hawksley offered a few words, which were listened to with some impatience, and the deputation withdrew. Some of the members considered that this reception had been anything but courteous, as no opportunity was afforded for statements or remarks by the deputation, and they felt somewhat aggrieved at such summary dealing on the part of professional brethren.

Subscriber.—We do not know anything of the publication in question.

THE FAMILY OF THE LATE MR. THOMAS.

To the Editor of THE LANCET.

SIR,—The following is a list of subscriptions already received, and which I beg of you to insert in your issue of Saturday next, as it may prove of incalculable service to Mrs. Thomas and her bereaved family:—

Received by N. C. Curzon, Esq., Etwall Hall:			
Rev. H. White, Sutton-on-the-Hill	£10	0	0
An Easter Offering	40	0	0
N. C. Curzon, Esq., Etwall Hall	25	0	0
Rev. R. G. Buckston, Ash Hall	10	0	0
Lady Blane	0	10	0
C. J. Clay, Esq., J.P., Stapenhill	3	0	0
C. E. Newton, Esq., Mickleover	5	0	0
Canon Ram, Rolleston Rectory	5	0	0
W. Curzon, Esq.	1	0	0
Miss Smart	1	0	0
Mrs. Leigh	1	0	0
Mrs. Henry Cotton	1	0	0
Mrs. Barber, Park Hill	5	0	0
G. A. Crewe, Esq., Etwall	1	0	0
Mrs. Crewe, „	1	0	0
Misses Crewe, „	0	10	0
Rev. E. Alder, „	5	0	0
Sir Henry Every, Egginton Hall	3	0	0
Lady Harrington	1	0	0
A. N. E. Mosley, Esq.	3	0	0
Miss Isabel Mosley, Tutbury	2	0	0
Received by G. A. Cope, Esq., Surgeon, Etwall:			
An Inhabitant of Etwall	2	0	0
Mr. and Mrs. Hardy, Etwall	1	10	0
Mrs. Tetlow, „	1	0	0
Mr. and Mrs. Cope, „	2	0	0
Mrs. Slaney, Hilton	0	10	0
Anonymous	0	5	0
Received by Mr. Wilkins, Barwood Hill, Burton-on-Trent:			
Mrs. J. Smith, Ironville	2	0	0
A Master Mason	5	0	0
R. Dunstan, Esq., St. Ives	0	10	6

Believe me, very truly yours,
FREDK. WILKINS, Treasurer.

Barwood Hill, Burton-on-Trent, May, 1875.

THE following amount has been received at THE LANCET Office on behalf of the above:—

Mr. Wolfenden, Tutbury £2 2 0

Sœur de la Charité, (Leicester.)—The recent work of the Count de Rienecourt, entitled "Les Militaires Blessés et Invalides: leur Histoire, leur Situation en France et à l'Etranger" (in two vols., Dumaine, Paris). The Count goes into the whole subject of the condition of the wounded in war, the provision made for their after-lives, &c. He has many comments on the ambulance service of the last war which merit attention.

POST-MORTEM EXAMINATIONS.

To the Editor of THE LANCET.

SIR,—In your journal for Saturday last I notice the account of a very important case of manual strangulation by Mr. Cullingworth, of Manchester. In summarising the results of his examination of the body of the deceased woman, Mr. Cullingworth lays stress on the fact that the cavities of the right side of the heart, which we are accustomed to see distended in death from asphyxia, were *empty*. Will Mr. Cullingworth kindly mention in what *order* the cavities of the body were examined, as I have before now met with cases of suffocation in which the right side of the heart was described as having been found empty, whereas the truth was, the head had been first examined, and the blood from the heart had escaped during the removal and examination of the brain. In practice it is, therefore, an essential rule that the chest, in cases of suspected asphyxia, should be *first* examined, so as to secure undoubted evidence of death from this cause in the distended right side of the heart, and before the blood is allowed to drain away through the examination being begun elsewhere.

Kindly insert this communication, as much with a view to the elucidation of this matter as with the object of ensuring the correctness of Mr. Cullingworth's observation and memoir of his interesting case.

I am, obediently yours,
Edinburgh, May 4th, 1875. JURIST.

REMOVAL OF FUSEL OIL FROM WHISKY.

OUR readers are, doubtless, aware that the consumption of new whisky is rendered deleterious by the presence of fusel oil. It has lately been found that an apparatus known to chemists as "Johnston's Still" is capable of removing this noxious ingredient and other objectionable matters; and for some months past Dr. Cameron, of Dublin, has in his laboratory made a careful examination of this subject, under the sanction of Her Majesty's Commissioners of Inland Revenue, and his report is most satisfactory. The fusel oil is eliminated by a peculiar regulation of the temperature of the vapours during the distillation of the alcohol, so that the spirit is produced pure, and is fit for consumption as soon as it is manufactured. In a sanitary point of view this invention is one of considerable importance, as the evils arising from the use of new whisky are well known in Ireland, producing, as it does, even when taken in small quantities, a sort of temporary madness.

Balbus, (Ipswich.)—The most successful treatment of stammering is that of Dr. Amédée Chervin, already alluded to in THE LANCET. Dr. Chervin, we believe, has lately demonstrated his method before the Medical Society of Rome, where in twenty days he succeeded in effecting a permanent cure on several confirmed stammerers. Profl. Baccelli and Maggiorani, of the Roman Medical School, have certified their appreciation of his practice.

MARRIAGES OF CONSANGUINITY.

To the Editor of THE LANCET.

SIR,—Kindly allow me to send to your valuable paper the following real case, with a view of obtaining some reliable answer to the questions involved therein.

Two first cousins, both under thirty-five years of age, are desirous of marrying each other; but since their respective fathers were brothers, and their respective mothers were sisters, they are, as it were, doubly first cousins, and are in every way of the same blood. Slight and weak in build and physique, though enjoying fair health, yet neither can be called at all strong or robust. It is anxiously wished to know whether—

1st. Ought such a marriage to take place? or, if not, on account of what risk or fears?

2nd. Is the ordinary risk that attends a marriage between first cousins at all increased by the fact here of the mothers and fathers being sisters and brothers? and, if so, does the risk of defective offspring become a certainty in this case?

3rd. What results have followed in similar cases? Is it the rule or the exception that evil results follow such marriages? Are any cases known where the issue of such marriages have been satisfactory and healthy?

Yours truly,
April, 1875. PRUDENCE.

*** The points that in our opinion should be attended to are these. First. Is there, or has there been, any distinct family history of special disease—any clear evidence of tubercular disease, for example? If so, then such marriage will intensify this disease, or rather the inherited tendency to this disease, and the fact of the close relationship of the fathers and mothers will augment the proclivity to it. If there be no family history of disease, then the decision must turn on other points. As, for example, whether the cousins are in such a position of life that they would not be exposed to any privations or overwork; and whether the same advantages could be extended to the children; and, again, whether the man be capable of controlling his sexual propensities so that neither he nor the woman shall suffer from exhaustion. We know of no instance where two brothers married two sisters, and the offspring again married, and therefore cannot tell the result; but we do know of a case where the grandfather and grandmother were first cousins, and the offspring, which was particularly fine, again married cousins, and the offspring of these are well grown and very healthy and intelligent; of four sons, three are over six feet high, and occupy responsible posts. The parties in "Prudence's" case appear to be somewhat delicate, and, looking at the case quite as outsiders, we should say the prospect of healthy issue is rather doubtful; but the fact of other conditions being favourable would materially modify the single condition of relationship.—ED. L.

Enquirer, (Leicester.)—We are distinctly of opinion that lying-in wards should not communicate with a vestibule common to the general wards of a large female union infirmary, in consequence of the risk which such an arrangement would involve to the patients in the former wards. All may go on pretty well for a time, perhaps, so long as the lying-in patients are few in number, the cases in the infirmary wards are of a simple character, and a strict attention is paid to hygiene; but the accidental occurrence of erysipelas or infectious disease among the ordinary patients would be fraught with danger to the parturient cases, to say nothing of the difficulty of maintaining the hospital atmosphere in that constant state of purity which is so necessary where lying-in patients are concerned. It is far better, in our opinion, to provide lying-in wards in a separate building entirely disconnected from other wards, to studiously avoid all overcrowding, and to provide for the periodical emptying of some of the wards, so as to guard against their becoming fouled by continuous occupation.

THE EFFECTS OF IODIDE OF POTASSIUM.

To the Editor of THE LANCET.

SIR,—Will any of your readers inform me whether they have noticed among their patients that the internal administration of iodide of potassium has occasioned cramp in the legs and feet? I have noticed the same effect on several occasions after taking this remedy, and am anxious to learn the experience of others.

Your obedient servant,
May 3rd, 1875. B. R.

MONUMENT TO MORGAGNI.

THE eighteenth century presents few higher names in medicine than that of John Baptist Morgagni, the great anatomist, pathologist, and clinical teacher. A monument will be erected to him on the 27th of May in his native Forli, the Town Council of which have invited to the ceremony all the medico-chirurgical Academies and Faculties of Italy and the principal medical bodies of other countries. The Town Councils of Padua and Bologna—cities which owe so much of their renown to Morgagni—will also assist; while the deputation of National History of the Emilia will embrace the occasion to hold a congress in Forli.

PUERPERAL FEVER.

To the Editor of THE LANCET.

SIR,—Seeing a letter by "P. M." under the above heading in to-day's LANCET, respecting three cases of puerperal fever, and that he states his belief that he was the cause of the whole mischief, in one case going so far as to aver, without the slightest hesitation, that he carried the poison to the patient, I thought the perusal of the following case might be of interest to him and others of your readers.

About eighteen months since I was sent for early one morning to a case of flooding. On my arrival I found there had been profuse hæmorrhage, which was still going on. The patient was about seven months advanced in pregnancy, and on making an examination I found the os dilated to about the size of a shilling, and the placenta completely covering it. I at once passed my hand into the vagina, and, introducing my index-finger into the uterus, swept the placenta clear from its walls as far as I could reach. I then proceeded to dilate the os, and when this was so far expanded as to admit of the introduction of my hand, I completed the separation of the placenta, ruptured the membranes, seized the feet of the child, delivered it alive, pressed off the placenta, and so completed the case.

Now, what makes the case interesting is this: Instead of having been in a house 200 yards off, where continued fever had existed eight or ten days previously, just to pay a casual visit, I had actually been attending scarlatina, and that of a malignant type, in the very house, and the mother whose case I have above narrated had been nursing the child during its illness, and, moreover, it was lying dead in the room (a very small one), within two yards of her bed, at the time she was confined. This patient, considering the amount of blood she lost, and the wretched hygienic condition of the room, made a very good recovery, and I have since delivered her of her ninth child without the slightest complication.

This is but one out of numerous cases of a similar character that I have met with.

If "P. M.'s" surmises be correct—viz., that we may be the means of communicating puerperal fever to a lying-in patient, simply from having been in a house where continued fever had existed some time previously,—how is obstetric practice to be carried on?

I am, Sir, yours truly,

Manchester, May 1st, 1875. C. S. RICHARDSON.

Inquisitive.—By two tablespoonsful is meant two tablespoons full, whereas two tablespoonfuls means a tablespoon filled twice. The latter term is used in ordering doses of medicine.

WATER-SUPPLY OF LONDON.

To the Editor of THE LANCET.

SIR,—With reference to the leading article on this subject in *The Times* of the 5th inst., in which the question is raised as to the feasibility of a "double supply"—one for drinking and cooking, and another for cleansing, street-watering, sewer-flushing, &c.,—and which is brought to the notice of your readers in your issue of the 10th inst., I venture to send the following extract from my Sanitary Report for the year 1866, to indicate (on the principle of *suum cuique*) the source from whence the writer of that article apparently derived his unacknowledged inspiration:—

"Water for domestic use is required for two distinct and very different purposes: the one for dietetic, and the other for general sanitary purposes, including drainage. The first—as shown by abundant evidence of the evil influence of impure water in the cholera epidemic of 1854, and of the present year—must of necessity be of the purest quality. The requirements of the second would be fulfilled by ordinary unfiltered river water, or by sea water, and could be supplied in unlimited quantity for public baths, fountains, the cleansing of streets, drainage, and all other sanitary purposes. Under the present system the great bulk of the water which has been purified by filtration for drinking use, and representing much money, is lost in being used for all other purposes than that for which the expensive process of filtration is employed. As it is necessary for the Water Companies to economise such expensive water to the utmost, the result is a necessity for storage—in itself an unnecessary and expensive evil to the consumer—and a stint in the general supply, even to an insufficiency, for the purpose of drainage. Looking to these conditions, it becomes a matter for consideration whether a sufficient supply of the purest water for drinking use only could not be obtained from the chalk strata by Artesian borings, the general supply for drainage and all other sanitary purposes being furnished by ordinary river water or by sea water. In the employment of such a system of distribution, a necessity would exist for a double system of pipes; but the expense of these would be amply compensated for by the removal of the entire cost of filtration."

Your obedient servant,

GEORGE EDWARD NICHOLAS, M.D.,
April, 1875. Medical Officer of Health for Wandsworth.

A SUGGESTION.

To the Editor of THE LANCET.

SIR,—I would beg to suggest as a resource in cases of ruptured uterus with prolapsus of intestine, that a vertical incision in the linea alba be made, the hand introduced into the cavity of the abdomen, the intestine grasped and gradually drawn upwards out of the ruptured uterus; an assistant, with his hand passed up into the interior of the uterus, guiding the protruded intestine in its course. Yours obediently,

Battersea, May 1st, 1875. JOHN C. RICHARDSON.

SUICIDE IN ST. PETERSBURG.

THE *Academical Gazette* states that the number of suicides has considerably increased in St. Petersburg within the last ten years. Formerly the number of persons who committed self-destruction varied from 50 to 60 annually. In 1864 there were 57 in St. Petersburg; in 1865, 59; in 1866, 61; in 1867, 78; in 1868, 87; in 1869, 102; in 1870, 125; in 1871, 152; in 1872, 167; in 1873, 141; and in 1874, within nine months, 127.

Vox Populi, (Salford.)—Belgium, thanks to her able publicists and sanitarians, is as little haunted by the anti-vaccination humbug as any country in Europe. Dr. Burggraeve, one of her leading physicians, has just raised a worthy monument to Jenner in a well-written account of the history of the discovery of the prevention of small-pox. He also gives a sketch of the greater small-pox epidemics up to Jenner's time, and treats the question of vaccination from every point of view in which it has latterly been criticised. It is a beautifully printed publication, and appears opportunely on the occasion of the first centenary of Edward Jenner's discovery.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—I am one of those, the minority no doubt, who believe that if medical officers desire to hold a real social position, the sooner they discard the sham one the better; and, spite of all that has been urged to the contrary, I venture to affirm that, if reasonable and just concessions had been made to them, they would have been, or, at any rate, would soon have become, satisfied under any reasonably good system. Every radical reform or new scheme that has been ushered into the world has shared the same fate. It was to be the ruin of everything; but somehow things went on much the same as before, and by degrees men began to confess to one another on the sly that it was not so bad after all. My hope is that the War Minister will take an independent course, and stick to the new organisation, but redress the just grievances of the department. Give the general system something like fair play—which it has not yet had,—and a few years, say five, and, practically, medical officers will be of one mind in regard to it. With a divided department the military element has had nearly all the power, and the administrative medical officers very little power for good, as far as their subordinates were concerned. With such a training, who can wonder that many of the seniors became afraid of responsibility, and were distrusted in consequence? No one wants to encroach in the slightest degree on the functions of the military; but we do want to manage our own affairs in our own way, if we are to be held responsible. The better the professional man the more he has to gain from the new system, which cannot remain where it is. Sooner or later it will become untrammeled by the unnecessary restrictions which now tie it down; the now constantly recurring sources of irritation and discontent will fade away, and the medical service will be more compact and more respected than it now is. I should like to hear the experience of the medical officers who took charge of detachments of the English ambulance sent to the Continent under the auspices of the Red Cross Society during the late war, or that of the medical officers on board the *Victor Emanuel* or on shore during the Ashantee campaign, whether they felt any difficulty in conducting their duties?

Yours obediently,

April 23rd, 1875. ONCE A REGIMENTAL DOCTOR.

A STRYCHNIA-EATER.

SOME have doubted whether by habit the system could be rendered more insensitive to strychnia as to opium and other poisons. A wonderful story appears in the *San Francisco Call*, which seems to show that this may be the case. It is an account of a man who is subject to fits of intemperance, and can "pull himself together" marvellously with doses of strychnia. We cannot answer for the facts; but they are thus briefly given by Mr. Gilroy, Advocate, after investigating the case for himself:—

"This person, who is known by the *sobriquet* of 'Jack,' is a man of intemperate habits, and has his periodical sprees, which last from one to three weeks, during which time he keeps completely saturated with whisky. If occasion requires that he should be sober at a certain time, or if by chance he feels the slimy folds of 'snake' coiling in his boots, he immediately procures a bottle of strychnine, and eats from ten to twenty grains. If the desired effect is not produced, say within an hour, the dose is repeated. Unless his spree has been protracted, one dose usually straightens him up, and no matter how drunk he is when he takes it, within three hours every trace of his debauch has left him, and the closest observer could not discover the slightest indication of recent dissipation. Instead of a hectic flush, a dull, heavy look, his eyes are clear and bright, and his skin presents its natural appearance."

Namor wishes for information as to where copies of former examination-papers of the preliminary educational examination for the Fellowship of the Royal College of Surgeons in Classics, Chemistry, &c., may be obtained.

PRURIGO ANI.

To the Editor of THE LANCET.

SIR,—With reference to the letter of "Delta," allow me to inform you that, after suffering from this affection for many years, and trying various remedies, I have derived great relief at night by inserting into the rectum a plug of marine lint. This remedy was suggested in THE LANCET (I should say about two years ago) by a physician, whose name I forget, but to whom I beg hereby to express my gratitude for the suggestion. In my case the suffering was intense, being aggravated by the double presence of piles and threadworms. Your obedient servant,

April, 1875. BETA.

To the Editor of THE LANCET.

SIR,—If your correspondent, "Delta," has not already done so, I would advise him to try Wright's liq. carbonis detergens, one part liquor to three of water. I have found the above very efficacious in similar cases.

Yours truly,

Yoxford, Suffolk, April 27th, 1875. W. B.

BONE-SETTING.

A CELEBRATED bone-setter, by name Burbidge, died lately in Frimley, Surrey, and local tradition ascribed numerous cures to his manipulative skill. We do not know whether any spells or incantations were used at the ceremonies in which he operated, as practised by some of the genus. The county seems to have been for generations prolific in bone-setters, and many readers will be reminded of the notorious female bone-setter of the last century, whose periodical progress to London, with four horses and outriders, partook of the nature of a Royal pageant. Extreme obesity at last interfered with her avocation; not, however, before she had amassed a handsome fortune. Mr. Barbidge's father and grandfather are said to have been celebrated bone-setters.

CHEMISTS AND DOCTORS.

THE following printed circular is forwarded to us for comment. It only requires publicity. The circular was sent to a patient of our correspondent:—

"Wilcox & Co.,
"English, French, and German Chemists,
"336, Oxford-street,
"Corner of Argyle-street, London, W.

"We beg to inform you that Dr. Meurer, from Coblenz, is in London, residing at 82, Maddox-street, where he may be consulted daily, from the 1st to the 31st of May, between the hours of 11 and 2.

"We are, yours obediently,
"WILCOX & CO."

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. R. Barnes, London; Dr. Burdon Sanderson; Mr. Barwell, London; Dr. L. Beale, London; Dr. Coupland, London; Mr. Bader, London; Mr. O. Pemberton; Dr. Gairdner, Glasgow; Mr. Abrath, Sunderland; Mr. R. B. Hogg, London; Mr. Litson; Mr. Wilkins, Burton-on-Trent; Dr. Fowler, St. Helens; Dr. Wallich, Herne Bay; Mr. Hozier, London; Dr. B. Addy, Southport; Mr. Kavanagh, London; Mr. Wilson, Chatteris; Mr. Robinson, Dublin; Dr. Clarke, Leicester; Mr. MacCormac, London; Mr. Wilson, Edinburgh; Mr. Handsley, Alford; Mr. Spark, Leeds; Mr. P. Manby; Mr. Elliott, Leeds; Mr. M'Cormac, Leicester; Mr. Gaylor, Belper; Dr. Saunders, Ontario; Dr. Keith, Edinburgh; Mr. M'Hardy, London; Mr. Castance, London; Dr. Hunter, Matlock; Dr. Gutteridge, London; Miss Stewart; Mr. Blackett, London; Mr. Richardson, London; Staff Surgeon Bolleau; Mr. Inglis, Worcester; Mr. Herring, New York; Mr. Richardson, Manchester; Mr. Gill, Belper; Dr. Garrett, Hastings; Dr. Baker, Michigan; Dr. Coombs, Castle Carey; Dr. Paggo, London; Dr. Tucker, Farningham; Dr. Richardson, Brynwy; Dr. Robinson, London; Dr. Coales, London; Mr. Dowker, Helmsley; Messrs. Lumley, London; Mr. Tulloch, Inverness; Mr. Prebble, Bognor; Mr. Wilson, Whitehaven; Mr. Smith, Sudbury; Mr. Freeman, London; Messrs. Goodall and Co., Leeds; Dr. Patterson, Oldham; Messrs. A. and W. Fox, Manchester; Mr. Evans, Belper; Dr. Sargent; Dr. Balthazar Foster, Birmingham; Dr. Burney Yeo, London; Mr. Winget, Torquay; Dr. Marcet, Cannes; Mr. Wilkinson; Mrs. Stewart, Belfast; Mr. Francis, Stow-on-the-Wold; Mr. Page, Sydenham; Mr. Herford, Manchester; Dr. Anderson, Richmond; Mr. Gill, Darlaston; Dr. Gascoigne, Ontario; Mr. Jones, Menai Bridge; Mr. Carey, Widnes; Dr. Carruthers, Kirkpatrick; Dr. Dobre, Chester; Dr. Craigmill, Aberdeen; Mr. Haslewood, Buxton; Rev. W. E. Richardson, Lewes; M. Fourdrin, Liege; Registrar, College of Physicians, London; F. V. D.; Royal Institution; A Sussex Doctor; Inquirer; R. M. O.; B. R.; X. Y.; A. M. E.; M.R.C.S.; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from — Mr. Davies, Birmingham; Mr. Eadon, Gloucester; Messrs. Lee and Nightingale, Liverpool; Mr. Griffiths, Bideford; Mr. Howse, London; Dr. Colman, Wolverhampton; Mr. Bickerstaff, Manchester; Mr. Bishop, Banbury; Mr. Clouting, Thetford; Mr. Thomas, Fulham; Mr. Williams, Brentford; Dr. Liveing, London; Mr. Britnell, London; Mr. Calantarients, Scarborough; Mr. Horder, Midhurst; Mr. West, Dobwalls; Mr. Macdonald, South Shields; Mr. Tennant, Fence Houses; Dr. Hemming, Abingdon; Mr. Stuckey, London; Mr. Wolfenden, Tutbury; Messrs. Wyleys and Co., Coventry; Mr. Simmons, Wotton-under-Edge; Mr. Whalley, Bradford; Mr. Gill, Torquay; Messrs. Clarke and Co., York; Mr. Jesse, Salisbury; Mr. Evans, West Bromwich; Mr. Commins, Chipping Ongar; Mr. Godfrey, Northampton; Messrs. Maclachlan and Co., Edinburgh; Dr. Dickson, Buxton; Dr. Mackay, Inverness; Messrs. Wotherspoon and Co., Paisley; Mrs. Kemp, Bournemouth; Mr. Greenwood, Liverpool; Mr. Norman, Daventry; Mr. Dunne, Dublin; Mr. Miles, Plympton; Mr. Scott, Gateshead; Messrs. Southall and Co., Birmingham; Mr. Wyllie, Scarborough; Mr. Etty, Scarborough; Mr. Buller, South Brent; Mr. Burnett, Mottram; Messrs. Ball and Morgan, York; Mr. Dyson, Thargoland; Mr. Villanueva, Birmingham; Mr. Blackman, Southampton; Dr. Waller, Peterborough; Mr. E. Lewis, London; Mr. Collins, Wednesbury; Mr. Murray, London; Mr. Tordoff, Bradford; M.D., Stratford-on-Avon; J. M.; J. L., Hereford; A. B., Rochdale.

Local Government Chronicle, Western Morning News, Manchester Guardian, Newcastle Daily Chronicle, Welshman, Liverpool Post, Cork Constitution, Leeds Mercury, Huddersfield Daily Chronicle, Surrey Advertiser, Sunderland Daily Echo, Worcestershire Chronicle, Birmingham Daily Post, Concordia, Derbyshire Times, Morpeth Herald, Isle of Man Times, and *Glasgow Herald* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, MAY 6TH, 1875.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
Apr. 30	30·09	W.	48	52	98	73	47	...	Fine
May 1	29·93	S.E.	49	50	...	54	49	0·07	Raining
" 2	29·93	N.W.	49	52	87	61	49	0·26	Overcast
" 3	29·95	W.	49	53	102	70	47	...	Fine
" 4	29·98	S.E.	51	55	97	63	50	...	Overcast
" 5	30·01	S.	53	59	102	69	50	...	Overcast
" 6	29·79	S.W.	54	57	...	...	54	...	Overcast

Medical Diary for the ensuing Week.

Monday, May 10.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ST. PETER'S HOSPITAL. — 3½ P.M. Expected Operations: Lithotrity; Removal of Testicle.

Tuesday, May 11.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Gladstone, "On Chemical Force."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. Wickham Legg, "On the Histology of Nutmeg Liver." — Mr. Henry Lee, "On Excision of the Ankle-joint."—Dr. Galabin, "On a new form of Cardiograph."—Mr. Gay, "On the Treatment of Nasal Lupus by Excision."

Wednesday, May 12.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, May 13.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Mr. JAS. DEWAR, "On the Progress of Physico-Chemical Inquiry."

Friday, May 14.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—8 P.M. Evening Meeting.—9 P.M. Mr. J. Evans, "On the Coinage of the Ancient Britons and Natural Selection."
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Jonathan Hutchinson will exhibit a Patient with a rare form of Malformation of the Head, with Protosis. — Dr. T. Henry Green, "On a Case of Acute Fatty Degeneration of the Heart."—Dr. Broadbent: "Absence of Pulsation in both Radial Arteries, the Vessels being full of Blood." — Dr. Geo. H. Evans, "On a Case of Dilated Heart from Valvular Disease; Right Ventricle tapped by error, not only without harm, but with relief of symptoms."

Saturday, May 15.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. W. Herries Pollock, "On the Drama."

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can only be forwarded as book packets, and *prepaid* as such.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under .....£0 4 6 | For half a page £2 12 0
For every additional line..... 0 0 6 | For a page 5 0 0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

Agent for the Advertising Department in France—
MONS. DE LOMINIE, 208, Rue Gremelle St. Germain, Paris.